CITY OF ROCHESTER
201 4TH STREET SE, ROOM 108
ROCHESTER, MN 55904-3742

********PROPOSAL*********

FOR SANITARY SEWER AND WATERMAIN TO SERVE
OAKLEDGE WITH BIDS RECEIVED UNTIL 11:00 O'CLOCK A.M. ON AUGUST 27, 2014

TO FURNISH AND DELIVER ALL MATERIALS AND TO PERFORM ALL WORK IN ACCORDANCE WITH THE CONTRACT, THE PLANS, AND THE APPROVED DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND "MATERIALS LAB SUPPLEMENTAL SPECIFICATIONS FOR CONSTRUCTION", 2014 EDITION, EXCEPT AS STATED OTHERWISE IN THE SPECIAL PROVISIONS WHICH ARE PART OF THIS PROPOSAL OR:

CITY PROJECT NO. M14-09 J NO. **(J7810)**

LOCATION: **Oakledge Drive SW, ROCHESTER, MN**

TYPE OF WORK **Sanitary Sewer and Watermain Extension**

LENGTH 1343 FEET COMPLETION DATE: November 15, 2014

I certify that this Proposal was prepared by me or under my direct supervision, and that I am a licensed Professional Engineer under the laws of the State of Minnesota.

Timothy A. Hruska, P.E. License Number 44930 8/8/14 (Date)

****

BID RIGGING IS A SERIOUS CRIME. IF YOU HAVE ANY INFORMATION CONCERNING COLLUSIVE BIDDING, EVEN A REQUEST TO SUBMIT A COMPLIMENTARY BID, PLEASE CALL THE MINNESOTA ATTORNEY GENERAL'S OFFICE AT TELE. NO. 651-296-1796

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CITY OF ROCHESTER

NOTICE OF BIDS

Notice is hereby given that bids will be received at the office of the City Clerk until **11:00 A.M. on August 27, 2014** for the construction of the following described local improvement, pursuant to Minnesota Statutes, Chapter 429, as amended, in accordance with the plans and specifications for the same which are on file in the Office of the City Clerk of said City:

City Project: M14-09 (J7810)
Construction of Sanitary Sewer and Watermain to Serve Oak Ledge

Immediately following expiration of the time for receiving bids, the City Clerk and two designated City officials will publicly open said bids in the City Hall. The Common Council will consider the bids in the Council/Board Chambers at the Government Center **at 7:00 P.M.** on **September 3, 2014**.

Said Construction generally consists of **Sanitary Sewer and Watermain construction**. The work includes the following approximate quantities of work:

8" Sanitary Sewer ..... 558 Lin Ft
Sanitary Sewer Manholes..... 4 Each
8" Watermain ..... 1,300 Lin Ft
Solid Rock Excavation .....1,050 Cu Yds
Street Restoration..... 75 Sq Yds
Sod ..... 1,700 Sq Yds

Plan, Specifications and Contract Documents may be examined at the Department of Public Works, 201 4th St. SE, Room108, Rochester, MN 55904, (507) 328-2400 or the City's website at https://egram.rochestermn.gov/.

Each bid must be accompanied by a cash deposit, bid bond, cashier's check or a certified check payable to the City of Rochester, Minnesota, for at least five (5) percent of the amount of the bid, which amount shall be forfeited to the City of Rochester, Minnesota, as liquidated damages if the bidder, upon the letting of the contract to him shall fail to enter into the contract so let; the Common Council reserving the right to reject any and all bids.

A Performance and Payment Bond for the full amount of the contract by a surety company authorized to do business in the State of Minnesota will be required with the contract. (Personal bonds will not be accepted.)

All proposals must be addressed to the City Clerk, City of Rochester, 201 4th St. SE, Room135, Rochester, Minnesota 55904-3742 and shall have endorsed thereon:

City Project: M14-09 (J7810)
Construction of Sanitary Sewer and Watermain to Serve Oak Ledge

Dated at Rochester, Minnesota this **4th day of August, 2014**.

AARON S. REEVES, ICMA- CM, City Clerk

Department of Public Works
201 4th Street SE, Room 108
Rochester, MN 55904-3740
(507) 328-2400

DIVISION S

S-1 REFERENCE DOCUMENTATION

Reference Documentation shall be the latest edition, including amendments and published updates, issued prior to the date of advertisement for bids or the date of request for quotations, of the following:

1. Minnesota Department of Transportation (Mn/DOT) Standard Specifications for Construction and Lab MATERIALS Supplemental Specification for Construction, except that Section 1903 shall not apply to any contract pay items.
2. City of Rochester Ordinances.
3. City of Rochester Standard Detail Plates.
4. City of Rochester Standard Specifications for Street & Utility Construction.

S-2 OWNER AND EASEMENTS

The City of Rochester is designated as the Owner. All work shall be located on public right-of-way or on easements to be provided by the Owner. The contractor shall confine his operations at all times within the limits of the easements. Any repairs or restoration outside the construction easement limits, required due to the contractor's carelessness, shall be made with no compensation allowed.

1. **If the Contractor obtains an agreement with a private land owner related to this project the City shall be provided a copy signed by the owner.**

S-3 CONFLICTS IN DIMENSIONING

In case of conflict between dimensions shown on the plans or detail drawing and those in the specifications, the dimensions on the drawings shall govern. If the conflict is other than dimensions, the specifications shall govern.

S-4 PERMITS, PUBLIC UTILITIES AND CODE REQUIREMENTS

Minnesota Department of Health and Minnesota Pollution Control Agency

The City of Rochester has applied and submitted payments for the Application for Watermain Extension and Sanitary Sewer Extension. All regulations and rules on these permits shall apply and will be considered a part of these Special Provisions.

The Contractor shall make the necessary arrangements for the use or installation of, and shall pay for, any and all utility service that may be necessary in conducting its work. The contractor must obtain permission from the City of Rochester Water Department if it is necessary to use City water, and said use of water shall be under the City's direction and supervision.

No payment shall be made for compliance with said permits; it shall be incidental to the project.

S-5 PRE-CONSTRUCTION CONFERENCE

The conference will be held with the Contractor, City Representative, Engineer, Utility Companies, and other parties involved in the project. Materials, material sources, construction methods, and scheduling will be reviewed and any questions or procedures will be clarified. The Contractor will be responsible for scheduling, coordinating, and conducting the pre-construction conference.

S-6 (1302) AWARD OF CONTRACT

Award of Contract shall be in accordance with the provisions of Mn/DOT 1302 and the following:

The City shall have up to **60 days** from the bid opening to award the contract during which time the bid unit prices shall prevail.

S-7 (1404) MAINTENANCE OF TRAFFIC (1710) AND (2563) TRAFFIC CONTROL

The Contractor shall provide the Project Engineer a Letter of Compliance stating that all of the Contractor's category I and II Devices are NCHRP 350 approved as of July 1, 2006. The Letter of Compliance must also include drawings of the different signs and devices and shall be provided to the Project Engineer at the Pre-Construction meeting.

All traffic control devices shall conform and be installed in accordance to the "Minnesota Manual on Uniform Traffic Control Devices" (MN MUTCD) and Part VI, "Field Manual for Temporary Traffic Control Zone Layouts", the "Guide to Establishing Speed Limits in Highway Work Zones", the Minnesota Flagging Handbook, the provisions of Mn/DOT 1404 and 1710, the Minnesota Standard Signs Manuals Parts I and II, the Traffic Engineering Manual, the Traffic Control Layouts/Typical Traffic Control Layouts in the Plans, and these Special Provisions.

S-7.1 Maintenance of Traffic

The Contractor shall furnish, install, maintain, and remove all traffic control devices required to provide safe movement of vehicular traffic through the Project during the life of the Contract from the start of Contract operations to the final completion thereof. The Owner will have the right to modify the requirements for traffic control as deemed necessary due to existing field conditions.

A traffic flow pattern on highways and city streets shall be maintained to provide emergency vehicle access to all property. Fire hydrants, on or adjacent to the work, shall be kept accessible to fire fighting equipment at all times. All street closings shall be approved by the city prior to closing. The temporary closing of any streets will require the installation of sufficient barricades, fences, and signs, to adequately deter traffic from entering the sites. If the streets are not closed, one lane of traffic shall be maintained at all times, and signs installed indicating "local traffic only".

Haul routes shall generally be along C.S.A.H. highways, or trunk highways, and coordinated with the engineer. The highways shall be kept open to traffic at all times, except as modified below.

S-7.2 Temporary Roadways

Temporary aggregate surfacing or millings will be required to maintain access for the residents. This shall be incidental to the Traffic control item.

S-7.3 Traffic Control

(A) Traffic control devices include, but are not limited to, barricades, warning signs, trailers, flashers, cones, drums, pavement markings and flagmen as required and sufficient barricade weights to maintain barricade stability.

The Contractor shall be responsible for the immediate repair or replacement of all traffic control devices that become damaged, moved or destroyed, of all lights that cease to function properly, and of all barricade weights that are damaged, destroyed, or otherwise fail to stabilize the barricades. The Contractor shall further provide sufficient surveillance of all traffic control devices at least once every 24 hours.

The Contractor shall furnish names, addresses, and phone numbers of at least three (3) individuals responsible for the placement and maintenance of traffic control devices. These individuals shall be "on call" 24 hours per day, seven days per week during the times any traffic control devices, furnished and installed by the Contractor, are in place. The required information shall be submitted to the Engineer at the Pre-construction Conference.

(B) If traffic control layouts are not present in the Plan, or the Contractor modifies the layout or sequence from the Plan, the Contractor shall submit the proposed traffic control layout to the Engineer, for approval, at least fourteen (14) days prior to the start of construction. At least 24 hours prior to placement, all traffic control devices shall be available on the Project for inspection by the Engineer. The Contractor shall modify his/her proposed traffic control layout and/or devices as deemed necessary by the Engineer.

(C) The Contractor shall notify the Engineer in writing at least 72 hours prior to the start of any construction operation that will necessitate lane closure or internal traffic control signing.

(D) The Contractor shall inspect, on a daily basis, all traffic control devices, which the Contractor has furnished and installed, and verify that the devices are placed in accordance with **the Traffic Control Layouts**, these Special Provisions, and/or the MN MUTCD. Any discrepancy between the placement and the required placement shall be immediately corrected.

The Contractor shall be required to respond immediately to any call from the Engineer or his designated representative concerning any request for improving or correcting traffic control devices. **If the Contractor is negligent in correcting the deficiency within one hour of notification the Contractor shall be subject to an hourly charge assessed at a rate of $250.00 per hour for each hour or any portion thereof with which the Engineer determines that the Contractor has not complied.**

(E) The person performing the inspection in paragraph (D) above, shall be required to make a daily log. This log shall also include the date and time any changes in the stages, phases, or portions thereof go into effect. The log shall identify the location and verify that the devices are placed as directed or corrected in accordance with the Plan. All entries in the log shall include the date and time of the entry and be signed by the person making the inspection. The Engineer reserves the right to request copies of the logs as he deems necessary.

The Contractor shall be required to provide copies of the inspection logs, within the time frame agreed upon, when requested by the Engineer. **If the Contractor is negligent in providing the inspection logs within the time frame agreed upon, the Contractor shall be subject to an hourly charge assessed at a rate of $250.00 per hour for each hour or any portion thereof with which the Engineer determines that the Contractor has not complied.**

(F) The third sentence of paragraph 2 in Mn/DOT 1404.7 (Winter Suspension) is hereby revised as follows:

"In the event that any Contractor-owned traffic control devices are damaged or destroyed making them ineffective for their intended use, the Contractor will receive payment in the amount of the value of the traffic control device as determined by the Engineer."

(G) If, at any time, the Contractor fails to, in a timely manner, properly furnish, install, maintain or remove any of the required traffic control devices, the City reserves the right to properly correct the deficiency. **Each time the City takes such corrective action, the costs thereof, including mobilization, plus $5,000 will be deducted from monies due or coming due the Contractor.**

(H) Measurement and Payment:

ITEM	DESCRIPTION	UNIT
2563.601	TRAFFIC CONTROL	LUMP SUM

S-4 (1507) UTILITY PROPERTY AND SERVICE

Construction operations in the proximity of utility properties shall be performed in accordance with the provisions of Mn/DOT 1507, except as modified below:

The following utility owners have existing facilities that may be affected by the work under this Contract, all of which they intend where necessary to relocate or adjust in advance of or concurrently with the Contractor's operations.

Full Name	Company	Description	Business Phone
Andrew Dohrmann	MERC	Gas - Yellow	(507) 273-5152
Ron Muller	Charter Communications	Cable-Orange	(507) 285-6112
	CenturyLink	Telephone - Orange	(507) 285-3629
Donn Richardson	Rochester Public Utilities	Water Dept - Blue	(507) 280-1509
Mike Engle	Rochester Public Utilities	Electric - Red	(507) 280-1579

The Contractor shall coordinate his/her work and cooperate with the foregoing utility owners and their forces in a manner consistent with the provisions of Mn/DOT 1507 and the applicable provisions of Mn/DOT 1505.

The City of Rochester utilities that are affected such as storm sewer, sanitary sewer, and water supply have been included in the Plan for adjustment or relocation. The Contractor shall notify Matt Crawford, Project Manager at telephone (507) 328-2411, in advance of the date he intends to start work and he

shall furnish that office with such information as may be necessary to permit the responsible authorities to make suitable arrangements relative thereto.

The Contractor shall verify all underground utility locations and elevations prior to construction. (Gopher State One Call 1-800-252-1166)

Rochester Public Utilities - All temporary water plans shall be approved by RPU prior to watermain shutdown. RPU will operate the existing gate valves to turn off the existing mains. RPU will test the bacteriological samples taken on the project.

Rochester Public Utiilities – Electric Department is responsible for the existing electric system within Oakledge. RPU will hold power poles that are close to an excavation or will relocate a power pole that conflicts with the proposed sanitary sewer or watermain.

S-5 (1717) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

Pollution of natural resources of air, land and water by operations under this Contract shall be prevented, controlled, and abated in accordance with the rules, regulations, and standards adopted and established by the Minnesota Pollution Control Agency (MPCA), and in accordance with the provisions of Mn/DOT 1717, these Special Provisions, and the following:

By signing the Proposal and completing the NPDES permit application, the Contractor is a co-permitee with the Department to ensure compliance with the terms and conditions of the General Storm Water Permit (MN R100001) and is responsible for those portions of the permit where the operator is referenced. This Permit establishes conditions for discharging storm water to waters of the State from construction activities that disturb 0.4 hectares [1 acre] or more of total land area. A copy of the "General Permit Authorization to Discharge Storm Water Associated with a Construction Activity Under the National Pollutant Discharge Elimination System (NPDES)/State Disposal System Permit Program" is available at http://www.pca.state.mn.us/water/stormwater/stormwater-c.html or by calling 651-296-3890.

In addition, the Contractor shall document the Inspection and Maintenance practices for erosion control on a website provided by the City (PermiTrack) as detailed in the SWPPP Inspection and Maintenance Section.

The City will provide the Contractor with the application form with Sections 1 thru 3 and 5 thru 14 completed, as part of the Contract document package. The Contractor shall fill out the Contractor's portion (Section 4 and Section 15), complete the application process, pay the permit fee, and post the Permit and MPCA's letter of coverage onsite.

A NPDES Permit Declaration form will be sent to the Contractor with the Contract award packet. A copy of the signed permit application and a signed Permit Declaration form must be returned with the Contract and Bond. Submittal of the copy of the signed permit application and Permit Declaration is mandatory for Contract approval. No work which disturbs soil and/or work in waters of the state will be allowed on this Project until the NPDES Permit is in effect and the Department has received the required documentation.

The Contractor shall be solely responsible for complying with the requirements listed in Part II.B and Part IV of the General Permit.

The Contractor shall be responsible for providing all inspections, documentation, record keeping, maintenance, remedial actions, and repairs required by the permit. All inspections, maintenance, and records required in the General Permit Paragraphs IV.E, shall be the sole responsibility of the

Contractor. The word "Permitee" in these referenced paragraphs shall mean "Contractor". Standard forms for logging all required inspection and maintenance activities, shall be used by the Contractor. All inspection and maintenance forms used on this Project shall be turned over to the Engineer every two weeks for retention in accordance with the permit.

The Contractor shall have all logs, documentation, inspection reports on site for the Engineer's review and shall post the permit and MPCA's letter of coverage on site. The Contractor shall immediately rectify any shortcomings noted by the Engineer. All meetings with the MPCA, Watershed District, WMO, or any local authority shall be attended by both the Engineer and the Contractor or their representatives. No work required by said entities, and for which the Contractor would request additional compensation from the City, shall be started without approval from the Engineer. No work required by said entities and for which the changes will impact the design or requirements of the Contract documents or impact traffic shall be started without approval from the Engineer.

The Contractor shall immediately notify the Engineer of any site visits by Local Permitting Authorities performed in accordance with Part V.H.

Emergency Best Management Practices must be enacted to help minimize turbidity of surface waters and relieve runoff from extreme weather events. It is required to notify the MPCA Regional Contact Person within 2 days of an uncontrolled storm water release. The names and phone numbers of the MPCA Regional Contact personnel can be found at: http://www.pca.state.mn.us/water/stormwater/stormwater-c.html. The Contractor is reminded that during emergency situations involving uncontrolled storm water releases that the State Duty Officer must be contacted immediately at 1-800-422-0798 or 1-651-649-5451.

The Contractor shall review and abide by the instructions contained in the permit package. The Contractor shall hold the City harmless for any fines or sanctions caused by the Contractor's actions or inactions regarding compliance with the permit or erosion control provisions of the Contract Documents.

The Contractor is advised that Section 1 of the NPDES application form makes reference to a Storm Water Pollution Prevention Plan (SWPPP). This Projects' SWPPP is addressed throughout Mn/DOT's Standard Specifications for Construction, as well as this Project's Plan and these Special Provisions. The following table identifies NPDES permit requirements and cross-references where this Contract addresses each requirement.

NPDES Permit Requirements	**Cross-Reference within this Contract**
Obtain NPDES Permit; Permit Compliance; Submit Notice of Termination	Mn/DOT 1701, 1702; and 1717 Special Provisions: 1717 (Air, Land & Water Pollution), 1717 (National Pollutant Discharge Elimination System (NPDES) Permit)
Certified Personnel in Erosion / Sediment Control Site Management Develop a Chain of Command	Mn/DOT 1506, 1717, and 2573; Special Provisions: 1717 (Air, Land & Water Pollution), and 1717 (National Pollutant Discharge Elimination System (NPDES) Permit)
Project / Weekly Schedule (for Erosion / Sediment Control) Completing Inspection / Maintenance Log / Records	Mn/DOT 1717 and 2573; Special Provisions: 1717 (Air, Land & Water Pollution), and 1717 (National Pollutant Discharge Elimination System (NPDES) Permit); and

Project Specific Construction Staging	The Plans; Mn/DOT 1717; Special Provisions: 1717 (Air, Land & Water Pollution), 1717 (National Pollutant Discharge Elimination System (NPDES) Permit); and 1806 (Determination and Extension of Contract Time)
Temporary Erosion / Sediment Control	The Plans; Mn/DOT 2573 and 2575
Maintenance of Devices / Sediment removal Removal or Tracked Sediment Removal of Devices	The Plans; Mn/DOT 1717 and 2573; Special Provisions: 1514 (Maintenance During Construction), 1717 (Air, Land & Water Pollution), and 1717 (National Pollutant Discharge Elimination System (NPDES) Permit)
Dewatering	Mn/DOT 2105.3B and 2451.3C; May also require DNR Permit
Temporary work not shown in the Plans Grading areas (unfinished acres exposed to erosion)	Mn/DOT 1717, 2573, and 2575; Special Provisions: 1717 (Air, Land & Water Pollution), and 1717 (National Pollutant Discharge Elimination System (NPDES) Permit)
Permanent Erosion / Sediment Control and Turf Establishment	The Plans; Mn/DOT 1717, 2573, and 2575; Special Provisions: 1717 (Air, Land & Water Pollution), and 1717 (National Pollutant Discharge Elimination System (NPDES) Permit)

S-6 *(2573) TEMPORARY EROSION CONTROL AND TURF ESTABLISHMENT*

Temporary Erosion Control and Turf Establishment shall be performed in accordance with the provisions of Mn/DOT Section 2573 except as modified below:

S-6.1 ***Perimeter Control:*** shall be installed prior to grading or grubbing to control sediment from leaving the project limits, and entering a critical resource. This work shall include furnishing, installing, and removing silt fence in accordance with the details shown in the Plans and the applicable Mn/DOT Standard Specifications.

S-6.2 ***Temporary Rock Construction Entrance*** shall be installed prior to construction, to control sediment from leaving the project limits. This work shall include furnishing, installing, maintaining, and removing the entrance in accordance with the details shown in the Plans and the applicable Mn/DOT Standard Specifications.

S-6.3 ***Inlet Protection:*** shall be furnished and installed on all inlets discharging to surface water. Inlets in rough graded areas need protection to keep any sediment from being transported to a Water of the State, or filling up the pipes with sediment. Inlet protection is shown in the plans.

S-6.4 ***Concrete Washout:*** All liquid or solid waste from concrete washout operations must be contained in a leak-proof container or impermeable liner to minimize groundwater impacts. Concrete washout containment shall be incidental to the project.

S-6.5 ***Temporary Ditch Checks:*** shall be furnished and installed on exposed ditches with a 1.5% slope or greater. Inlet protection is shown in the plans by type; see specification 3891.

S-6.6 ***Steep Slopes:*** shall be stabilized with a Category 3 Erosion Control Blanket. This would apply when the exposed area is left unworked for 7 days or more.

S-6.7 **Basis of Payment:** Bidders are advised that payment for furnishing and installing temporary erosion control set forth in the foregoing area is for the initial installation and removal only. Any replacement components as may be necessary to maintain the temporary erosion control devices in a functional condition, to the satisfaction of the Engineer, during the tenure of this Contract shall be furnished, installed, maintained, and removed at the Contractor's expense.

Temporary Erosion Control shall conform to all applicable requirements of the NPDES Storm Water Permit. The price bid for temporary erosion control items shall include compensation for all maintenance required to conform to NPDES Storm Water Permit requirements, and shall not be subject to the provisions of Mn/DOT 1903.

ITEM	DESCRIPTION	UNIT
2573.502	SILT FENCE, TYPE MACHINE SLICED	LIN FT
2573.602	TEMPORARY ROCK CONSTRUCTION ENTRANCE	EACH
2573.603	DITCH CHECK, TYPE 2	LIN FT

S-7 ***(2573) STORM WATER MANAGEMENT***

The provisions of Mn/DOT 2573 are supplemented and/or modified with the following:

S-7.1 The second paragraph of Mn/DOT 2573.3A1 Erosion Control Supervisor is revised to read as follows:

> The Erosion Control Supervisor shall be a fully MPCA certified inspector/installer, and shall be a responsible employee of the prime Contractor and/or duly authorized by the prime Contractor to represent the prime Contractor on all matters pertaining to the NPDES construction stormwater permit compliance. The Erosion Control Supervisor shall have authority over all Contractor operations, which influence NPDES permit compliance including grading, excavation, bridge construction, culvert installation, utility work, clearing/grubbing, and any other operation that increases the erosion potential on the Project. In addition, the Erosion Control Supervisor shall be available to be on the Project within 24 hours at all times from initial disturbance to final stabilization, and perform the duties outlined in the Storm Water Pollution Prevention Plan.

S-7.2 Section 2573.4S is deleted and replaced by the following:

> No measurements will be made of the various duties that the Erosion Control Supervisor performs or of the number of hours required, but all such work will be construed to be included in the single Lump Sum Payment under Item 2573.601 (Erosion Control Supervisor). Upon satisfactory completion of at least half of the anticipated Project duration time, the Engineer may authorize partial payment not exceeding 50 percent of the Contract bid price. Project duration time is estimated as the time between the actual Project start date and the Project completion date. The remaining percentage will be paid upon completion of the Project.

S-7.3 Mn/DOT 2573.5 Basis of Payment is revised to read as follows:

Payment for storm water management and sediment control items will be compensation in full for all labor, materials, equipment, and other incidentals necessary to complete the work as specified, including the costs of maintenance and removal as required by the Contract. The Contractor will receive compensation at the appropriate Contract prices, or in the absence of a Contract bid price, according to the following unit prices, or in the absence of a Contract price

and unit price, as Extra Work. The provisions of 1903 are modified to the extent that the City will not make a price adjustment in the event of increased or decreased quantities of temporary erosion control items.

S-7.4 The first sentence of Mn/DOT 2573.3E2 is revised to read as follows:

The bioroll shall be installed and anchored with wood stakes. The stakes shall be at a minimum nominally 25 mm x 50 mm (**1 inch x 2 inch**) and a minimum of 400 mm (**16 inches**) long with a pointed end.

S-7.5 The first paragraph of Mn/DOT 2573.3J Filter Log Installation is revised to read as follows:

Filter logs shall be placed in accordance with the Plan. Straw and wood fiber filter logs shall be staked in place with wood stakes. Wood stakes shall be at a minimum 25 x 51 mm (**1 x 2 inch**) nominal size by 400 mm (**16 inches**) long. The stakes shall be driven through the back half of the log at an angle of approximately 45 degrees with the top of the stake pointing upstream. When more than one log is needed for length, the ends shall be overlapped 150 mm (**6 inches**) with both ends staked. Staking shall be every 0.3 m (**1 foot**) along the log unless precluded by paved surface or rock.

ITEM	DESCRIPTION	UNIT
2573.550	EROSION CONTROL SUPERVISOR	LUMP SUM

S-8 (1803) PROSECUTION OF WORK

The provisions of Mn/DOT 1803 shall apply.

S-9 (1806) DETERMINATION OF CONTRACT TIME

The contract time will be determined in accordance with the provisions of 1806 and the following:

S-10 Final Completion Date

All work, including restoration, required by these contract documents shall be completed no later than **November 15, 2014.**

S-11 (1807) ASSESSMENT OF LIQUIDATED DAMAGES

The Assessment of Liquidated Damages will be determined in accordance with the provisions of Mn/DOT spec 1807. Table 1807-1 states Original Contract Amounts from $100,000,000 to $500,000 the Charge per Calendar Day is **$900.00**. This charge will be assessed after September 30, 2014.

S-12 INCIDENTAL WORK

Items of work for which no pay items are included in the bid proposal shall be considered as incidental expense and no separate payment will be made therefore. Incidental items include, but are not limited to the following:

Abandon and plugging existing lines and structures
Disposal of excess excavation
Sawing new concrete joints
Sawing existing concrete or bituminous pavement or curbs for removals
Temporary access roads

Maintaining access to private property and utilities
Dewatering
Finish grading of disturbed areas or street subgrades
Trench Excavation for Storm Sewers and culverts
Dust Control
Removal and replacement of fencing
Removal of miscellaneous landscaping and shrubs
Temporary relocation of mailboxes
Coordinating garbage service
Pipe Bedding and Encasement
Filter Fabric in trenches
Temporary hydrants or gate valves
Applications fees for General Stormwater Permit
Removal and replacement of existing landscaping

S-13 (2021) MOBILIZATION

Mobilization shall be performed in accordance with the provisions of Mn/DOT 2021 Site Work General Requirement, and the following:

Mobilization shall be measured and paid for under item Mobilization at the contract lump sum price, which shall be compensation in full for all labors, materials, and equipment necessary to complete the work as specified.

1. Partial payments for Mobilization will be made in accordance with Mn/DOT 2021.5.

Item No.	Item	Unit
2021.501	MOBILIZATION	LUMP SUM

S-14 (2101) CLEARING AND GRUBBING

Clearing and grubbing operations shall be performed in accordance with the provisions of Mn/DOT 2101 and the following:

All materials obtained from clearing and grubbing operations shall be disposed of outside the Right of Way at locations selected by the Contractor in accordance with the provisions of 2104.3C.

Burning or burying timber, stumps, roots or other debris will not be permitted.

Stumps may be removed by grinding the stumps to a depth of not less than 6" below grade.

Trees not designated for removal shall be protected from damage. If the contractor damages a tree not designated for removal, they shall contact the City Forester, to determine what the appropriate remedy is for the damaged tree. Trees not designated for removal that are damaged and need to be removed shall at the contractor's expense.

Miscellaneous landscape plants and shrubs designated for removal shall be incidental to clearing.

All clearing and grubbing as shown on the plans BY AREA shall include trees and brush of all sizes.

Trees greater than 4 inches in diameter shown on the plans for INDIVIDUAL clearing and grubbing will be measured by each tree removed.

Measurement and Payment shall be made at the contract prices.

Item No.	Item	Unit
2101.501	CLEARING	ACRE
2101.502	CLEARING	TREE
2101.506	GRUBBING	ACRE
2101.507	GRUBBING	TREE

S-15 (2104) REMOVING PAVEMENT AND MISCELLANEOUS STRUCTURES

Removals shall be performed in accordance with the provisions of Mn/DOT 2104, except as modified below:

S-15.1 Measurement and payment for the removal and disposal of materials will be made only for those Items of removal work specifically included for payment as such in the Proposal and as listed in the Plans. The removal of any unforeseen obstruction requiring in the opinion of the Engineer equipment or handling substantially different from that employed in excavation operations, will be paid for as Extra Work as provided in Mn/DOT 1403.

S-15.2 All removals shall be disposed of by the Contractor outside the Right of Way in accordance with Mn/DOT 2104.3C3 to the satisfaction of the Engineer

S-15.3 **Item 2104.505 "Remove Bituminous Pavement"** If no pay item is included then it is incidental to the project otherwise, shall include the removal of existing bituminous pavement as noted on the plans. Measurement and payment shall be made based on surface area and shall be compensation for the total depth of the bituminous pavement and bituminous curb at the contract unit price per square yard, which shall be compensation in full for all labor, equipment, and materials necessary to remove and dispose of the bituminous pavement. Bituminous curb will not be measured separately and is considered part of the bituminous pavement. Bituminous pavement can be milled and can be used as temporary road material.

S-15.4 **Item 2104.511 & 2104.513 "Sawing Bituminous or Concrete Pavements"** If no pay item is included then it is incidental to the project.

S-15.5 **Item W200.564 "Remove Watermain"** Shall include the removal of existing watermain as noted on the plans, temporary closing or maintaining flows shall be coordinated with the water department. Measurement and payment shall be made at the contract unit price per linear foot, which shall be compensation in full for all labor, equipment, and materials necessary to complete the work.

S-15.6 Sewers or watermains within the trenching limits shall be removed and paid for at the contract prices. Sewers or watermains outside of the trench limits shall be plugged all as incidental expense.

S-15.7 Mailboxes and garbage service: The contractor shall temporarily relocate mailboxes to a location designated by the Postmaster. The Contractor shall reinstall mailboxes at the previous location at the completion of the project. Relocation of mailboxes is incidental to the project.

The Contractor shall insure removal of residential waste (garbage) on the regular schedule. If the normal accommodations can not be met, the Contractor shall coordinate and move existing

residential bins to a site that can be accessed by the waste disposal company. This is incidental to the project.

S-15.8 Miscellaneous fence removals and reinstallations shall be incidental to the project.

ITEM	DESCRIPTION	UNIT
2104.505	REMOVE BITUMINOUS SURFACING	SQ YD
W200.572	CONNECT TO EXISTING WATERMAIN	EACH

S-16 (2105) TOPSOIL BORROW

Excavation and embankment shall be performed in accordance with the provisions of Mn/DOT 2105 and the following:

S-16.1 *A quantity of Topsoil Borrow has been provided for the project, only if there is not sufficient salvaged topsoil or if salvaged topsoil is not suitable for landscaped areas in other project locations. Topsoil Borrow shall be used only if ordered by the City.*

S-16.2 The following is added to Mn/DOT 2105.5 (Basis of Payment)

ITEM	DESCRIPTION	UNIT
2105.525	TOPSOIL BORROW	CU YD

S-17 (S100 and W200) Trench Excavation

Trench Excavation and embankment construction shall be performed in accordance with the provisions of T100 except as modified below:

S-17.1 **Bedding and Encasement material (B&E)** shall be according to T100 and the following:

1. in non-water table areas (B&E) shall be according to City spec T100.207 (Mn/DOT Specification Section 3138 for Class 5 Aggregate)
2. All beding and encasement work shall be performed as incidental to the sewer and water construction, for which no direct payment will be made.

S-18 **Rock Excavation** If sandstone or weathered limestone is encountered, Trench Excavation of sandstone or weathered limestone will not be considered for payment as Solid Rock Excavation unless the Contractor can demonstrate that extraordinary measures are required to complete the trench work. Extraordinary measures would include ripper-tooth on a bulldozer or hydraulic jackhammer. Excavation by backhoe with a rock-teeth bucket will not be considered an extraordinary measure. The need for a larger backhoe to perform the limestone excavation will not be considered an extraordinary measure. MN/DOT Class 5 bedding and pipe encasement is required in the rock cut areas as an incidental expense. Rock that is removed from the trench shall be crushed sufficiently to a size less than six (6) inches in diameter before it can be used as trench backfill. Rock larger than 6 inches in diameter will not be allowed as trench backfill.

The borings on the plans and in these Special Provisions indicate trenching through a limestone formation with a rock refusal limit. **Blasting or the use of explosives is prohibited on this project**. Rock Excavation shall be accomplished by hydraulic jackhammer.

S-18.1 **Granular Material for Backfill and Aggregate for Pipe Foundation**

A quantity of Granular Material for Backfill, and Aggregate for Pipe Foundation have been provided to be placed only as directed by the City to stabilize trenches in the event that unforeseen geology or other stability issues are encountered. Payment for these items shall include disposal of all displaced material.

S-18.2 Basis of Payment

Trench excavation for sanitary sewers or watermains shall cover cost of trench excavating, backfilling and compaction of backfill to original grade. All trench excavation for storm sewer installation shall be incidental.

Measurement of Rock Excavation shall be according to City Specification T100.403. The Contractor is required to keep accurate depth to solid rock records at a minimum of every 25 foot station.

Item No.	Item	Unit
W200 or S100.501	TRENCH EXCAVATION FOR PIPE 24 IN & UNDER __FT TO __FT DEEP	LIN FT
S100.507	SOLID ROCK EXCAVATION	CU YD
W200 or S100.510	GRANULAR MATERIAL FOR BACKFILL (LV)	CU YD
W200 or S100.511	AGGREGATE FOR PIPE FOUNDATION, GRADATION A	CY YD

S-19 (S100) SANITARY SEWER

Sanitary Sewer construction shall be performed in accordance with the provisions of S100 and the following:

S-19.1 Alternate Pipe/ Pressure Pipe Sewer of each design designation will be measured by length along the line of pipe. Terminal points of measurement will be the pipe end at free outlets; the point of connection with inplace pipe; the center of manholes or catch basins; the point of centerline intersections at branch fittings; or the point of juncture with other appurtenances or units as defined. All proposed sanitary sewer located within a common trench with the proposed watermain shall be constructed of watermain quality pipe meeting the requirements of section S100.202D of the City standard specifications.

All common trench sanitary sewers shall be tested to a minimum pressure of 150 psi to ensure water tightness.

Materials allowed S100.202 Alternate Pipe for Sanitary Sewer are as below:

	Minimum equivalent wall requirement By Depth	
	Less than 20ft	Over 20ft
A. 8 – 12 inch diameter		
1. Polyvinyl Chloride (PVC) Pipe ASTM D2241		SDR 26
2. Polyvinyl Chloride (PVC) Pipe ASTM D3034	SDR 35	SDR 26
3. Polyvinyl Chloride (PVC) Pipe ASTM F949	SDR 35	SDR 26

***S-19.2* Structures** of each design will be measured by number of each constructed complete-in-place, including the base and castings as required, for the depth increments as stated in the proposal. A "Z-LOK" connector or approved equal gasket meeting ASTM C-923, ASTM C-1478, ASTM C-1644 and ASTM F-2510 shall be provided for structures SMH 3 and SMH 4. Payment for constructing manholes at the appropriate Contract prices will be compensation in full for all costs of the work.

The contractor shall only furnish and install polyethylene adjustment rings for sanitary sewer structures. See SDP 1-13, sheet 2.

***S-19.3* Sanitary Bypass Flows:** Sanitary sewer flows shall not be disrupted during the construction as an incidental item.

***S-19.4* Basis of Payment**

Item No.	Item	Unit
S100.520	FURNISH & INSTALL __IN ALTERNATE PIPE SEWER.....	LIN FT
S100.545	CONSTRUCT STRUCTURE TYPE _ (_IN) __FT TO __FT DEEP ..	STRUCTURE

S-20 (S100.578) SANITARY SEWER MANHOLE WATERPROOFING

All sanitary manholes shall be sealed according to the detail plate 1-07, and the following:

S-20.1 *Basis of Payment for furnishing and installing manhole waterproofing at the appropriate Contract price will be compensation in full for all costs of the work. This work includes:*

a. Chimney water proofing shall be I & I Barrier by Strike Tool within the street or approved equal.
b. An external chimney seal shall be provided if the manhole is outside of the street, per the detail.
c. 12" External Sealing Wrap, all manhole joints per ASTM C877 as shown on the detail.
d. A manhole marker sign shall be included for manholes in non-paved areas, as shown on the detail.
e. All manhole castings shall be set flush to the surface.

All work shall be performed as incidental to the manhole.

S-22 (W200) WATERMAIN

This work shall consist of providing all labor, equipment, and materials to construct the watermain. All work shall be done in accordance with the City of Rochester Standards for Street Construction.

S-22.1 **Maintenance of Service**

Disruption of watermain flows during the construction of this project shall be kept to a minimum and considered incidental to the project. All watermain disruptions shall be coordinated with RPU. All service connection work will be accomplished and coordinated with the residences served. The City of Rochester Public Utilities and all affected property owners and residents shall be notified a minimum of 48 hours prior to disruption of service, no exceptions.

S-22.2 Watermain shall be constructed according to section W200 and the detail plate. Measurement shall be by the linear foot. This work includes, but is not limited to all work necessary to maintain service, bedding, encasement, and backfill necessary to install the watermain. Any temporary hydrant or gate valve installed for the convenience of the contractor is considered incidental to the project and shall be removed at the end of the project

S-22.3 Basis of Payment

Trenching, Bedding, Encasement and Backfill material for each type of pipe shall be according to the manufacturers' recommendations for pipe installations in a roadway section or T100, whichever is more stringent. All costs of furnishing and placing the pipe installation materials shall be considered incidental to the installation of the pipe.

Measurement and payment for connect to watermain shall be by each connection at a point where no proposed valve or fitting was planned. If a valve or fitting is shown on plan connecting the existing main, it will not be measured as connect to watermain.

ITEM	DESCRIPTION	UNIT
W200.501	TRENCH EXC. FOR PIPE 14 IN & UNDER ___ TO ___ DEEP	LIN FT
W200.510	GRANULAR MATERIAL FOR BACKFILL (LV)	CU YD
W200.511	AGGREGATE FOR PIPE FOUNDATION, GRADATION A	CU YD
W200.556	F&I 12"X8" TAPPING SLEEVE AND VALVE	EACH
W200.528	FURNISH & INSTALL ____IN DUCTILE IRON PIPE CLASS 52	LIN FT
W200.550	FURNISH & INSTALL ___ IN GATE VALVE & BOX	EACH
W200.560	FURNISH & INSTALL 6 IN HYDRANT ASSEMBLY	EACH
W200.562	FURNISH & INSTALL WATER MAIN FITTINGS	POUND
W200.572	CONNECT TO EXISTING WATERMAIN	EACH

S-23 (C150) SERVICE CONNECTIONS

This work shall consist of providing all labor, equipment, and materials to construct the service connections. All work shall be done in accordance with the City of Rochester Standards for Street Construction.

S-23.1 Bedding and encasement requirements shall conform to gradation CA3 in areas of high watertable, and to Mn/DOT Class 5 in all other areas. Geotextile fabric shall be furnished and installed over the CA-3 bedding and encasement as an incidental item.

S-23.2 All copper tubing shall be cut with a tubing cutter that is in good condition. Cuts shall be square and the inside of the pipe shall be reamed.

S-23.3 Embedment or encasement limits shall conform to that specified for sanitary sewer and watermain. See City specification T-100.307.

S-23.4 Compacted Trench Backfill shall be required.

S-23.5 The new services shall include all necessary bends, adapters and curb stops with boxes to make the complete connection. Water service connections shall also include all corporation stops, copper piping and fittings to connect the proposed watermain to the existing water service. Water service connections shall also include connecting the directionally drilled polyethylene pipe to the proposed copper water services.

S-23.6 The Contractor shall verify all service connections, or reconnections with the Owners of the adjacent property and City to insure all service connections are replaced or properly abandoned, before beginning service connection work.

S-23.7 The Contractor shall be required to coordinate service line work with any other private plumbing contractors who may need to enter the site to perform work from the boulevard to the house.

S-23.7 Measurement and Payment

Payment for the various Service Connections (C150.503, or 504) at the unit price for "each", shall include all connections regardless of length, which are built within the street rights-of-way.

Payment for directional drilling of various service connections shall be by the linear foot.

ITEM	DESCRIPTION	UNIT
C150.503	4 IN SANITARY SEWER SERVICE CONNECTION	EACH
C150.504	1 IN WATER SERVICE CONNECTION	EACH

S-24 (2211, 2360) BITUMINOUS STREET RESTORATION

Bituminous Restoration shall include reconstructing the existing bituminous pavements according to the various typical sections, the applicable Mn/DOT Standard Specifications (2211, 2360/2350, and 3138) and the following:

S-24.1 *Aggregate*

The Contractor shall place the required thickness of compacted Aggregate Base/Surfacing Class 5, in accordance with the provisions of Mn/DOT 2211. Compaction shall be achieved by the "Quality Compaction Method" as described in Mn/DOT 2211.3C. Aggregate base shall be measured as a plan quantity, unless extra work is ordered.

S-24.2 Bituminous Pavements

The Contractor shall place the bituminous material in 2 (two) lifts providing bituminous tack coat between courses. Pavement smoothness requirements of 2360.7C will not apply on this project.

Bituminous mix design shall be SP WEB 230B.

Furnishing and placing the tack coat between layers shall be considered incidental to the construction and no separate payment will be made therefore.

S-24.3 Measurement and Payment

Item No.	Item	Unit
2118.503	AGGREGATE SURFACING CLASS 5	SQ YD
2360.503	TYPE SP 12.5 WEARING COURSE MIXTURE (3,C)	SQ YD

S-25 (2575) PERMANENT EROSION CONTROL AND TURF ESTABLISHMENT

The provisions of Mn/DOT 2575 are supplemented and/or modified with the following:

S.25.1 Disturbed areas, as shown in the plans, shall be sodded or seeded as soon as practical after completion of the grading operations, but within the period specified. Sodding shall be on established lawn areas. Seeding shall be on non-lawn areas.

S.25.2 **Topsoil:** The Contractor shall salvage and stockpile for future reuse to provide for a minimum of 3 inches thick on sodded areas as an incidental expense. Immediately before

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

STORMWATER POLLUTION PREVENTION PLAN

FOR

CITY PROJECT NO. M14-09 J NO. **(J7810)**

LOCATION: **Oakledge SW, ROCHESTER, MN**

TYPE OF WORK **Sanitary Sewer and Watermain Extension**

LENGTH 1343 FEET COMPLETION DATE: September 30, 2014

Department of Public Works
201 4th Street SE, Room 108
Rochester, MN 55904-3740
(507) 328-2400

Storm Water Pollution Prevention Plan Contacts

Owner: City of Rochester, Minnesota

Phone: 507-328-2400

Owner Address: Department of Public Works

201 4th Street S.E., Room 108

Rochester, MN 55904-3740

Owner Contact: Matt Crawford, Project Manager

Phone: 507-328-2419

Contractor: _____

Phone: _____

Contractor Address: _____

_____

_____

Erosion Control Sup: _____

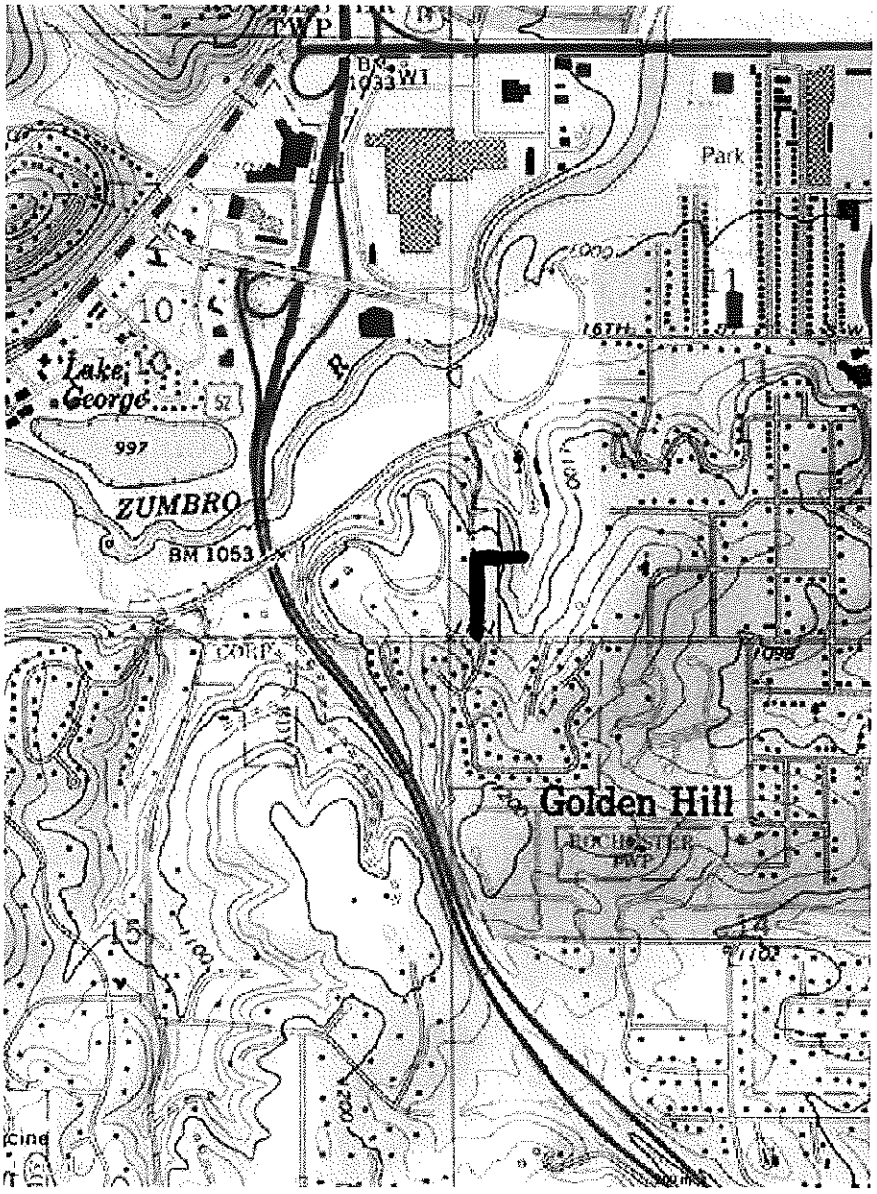
Phone: _____

SWPPP Designer: Daren Sikkink, P.E. – U of Mn. Design 5-2016

Phone: 507-288-3923

FIGURE 1 – PROJECT LOCATION QUADRANGLE MAP

ACME Mapper 2.1 - 0.7 km SxSW of Olmsted County MN Page 1 of 1



http://mapper.acme.com/ 7/21/2014

FIGURE 2 – OLMSTED COUNTY GEOLOGIC ATLAS SOIL TYPES MAP

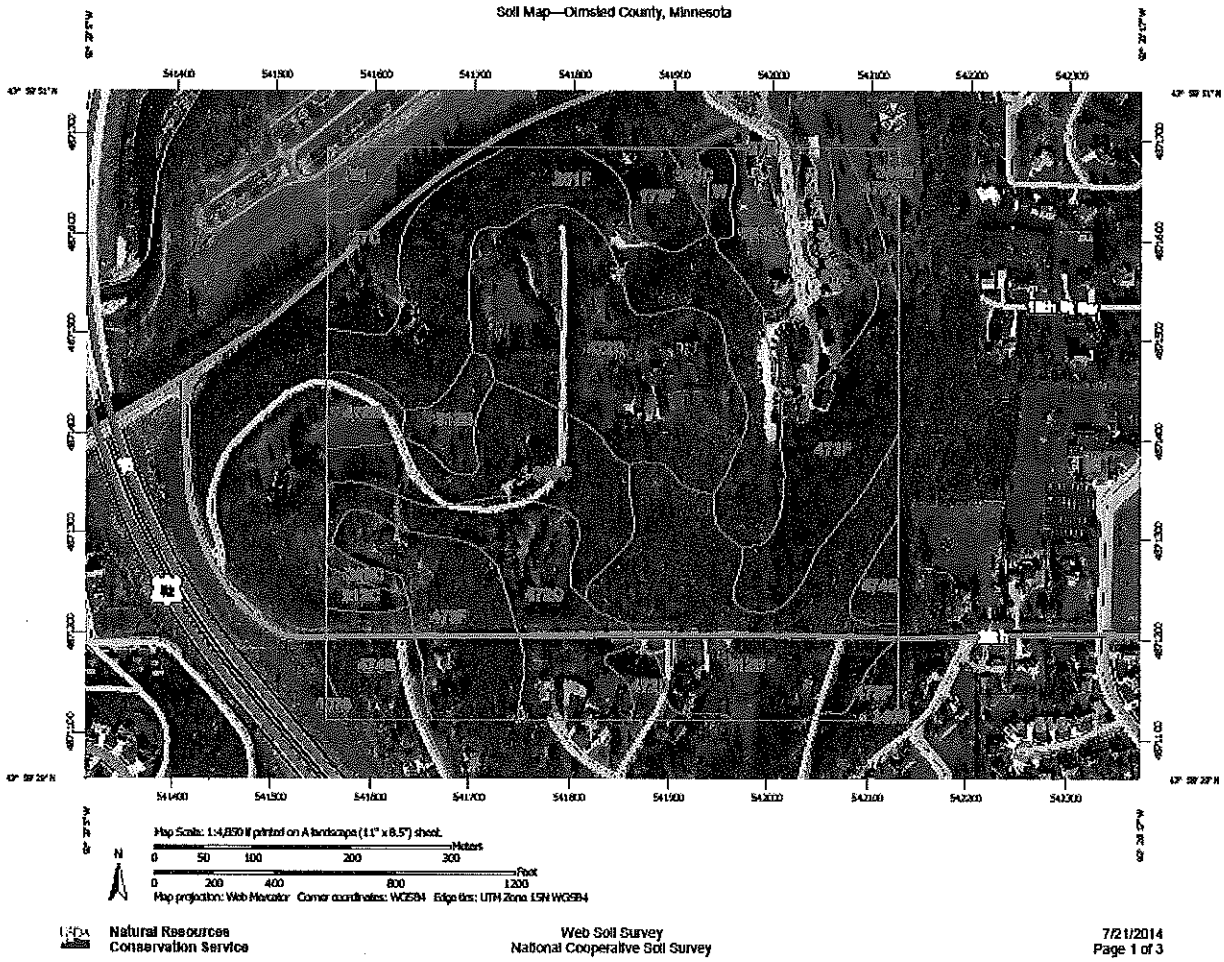
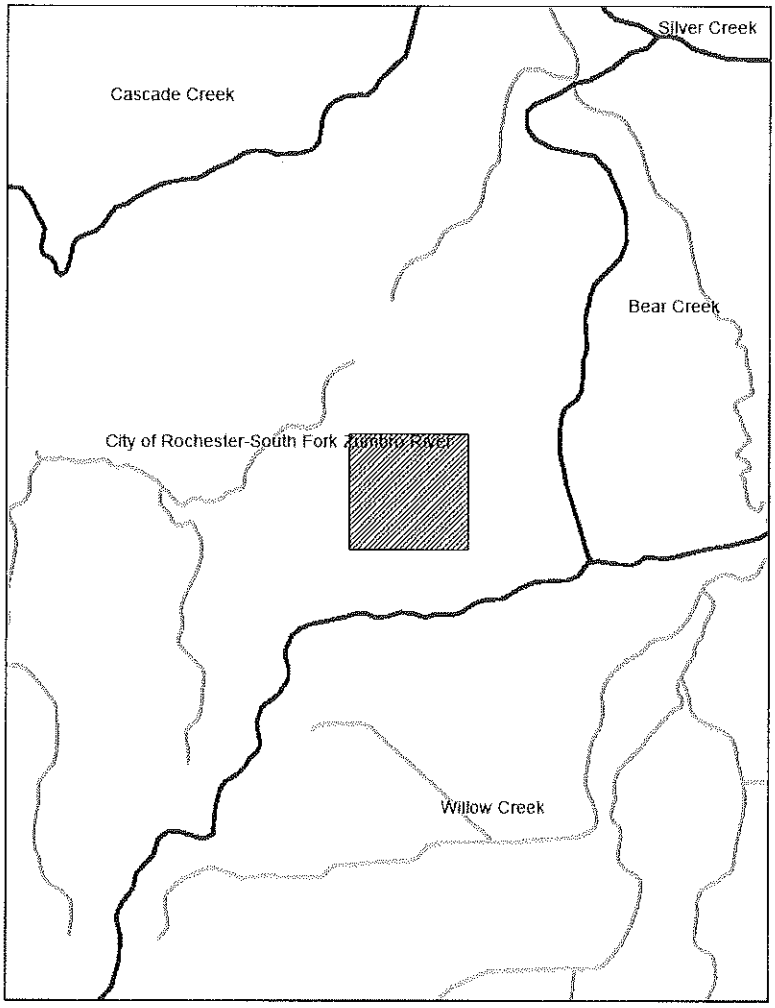


FIGURE 3 – DEPARTMENT OF NATURAL RESOURCES (DNR) WATERSHEDS MAP



Department of Public Works
201 4th Street SE, Room 108
Rochester, MN 55904-3740
(507) 328-2400

PROJECT SUMMARY

Name and Location

CITY PROJECT NO. M14-09 J NO. **(J7810)**

LOCATION: **Oakledge Drive SW, ROCHESTER, MN**

TYPE OF WORK **Sanitary Sewer and Watermain Extension**

LENGTH 1343 FEET

(See Figure 1 for Project Location)

Site Description:

The sanitary sewer extension project begins in the Bible College property and extends to the Oakledge area. The watermain is extended from 20th Street SW to the Oakledge area.

The project falls into one major contributory watershed; the Zumbro River Watershed, which is about 8,400 acres of largely flat valley urban landscape. The project is further identified as contained in sub basin of the watershed referred to as 2r-a3.12.

The contributory watersheds consist of urban land/sandy soils.

Purpose:

The objectives of the project are:

1. Install a sanitary sewer and watermain to serve an area of the City which does not have municipal utilities.

Features

Project features are shown on the Construction Drawings.

Trench Excavation

The Contractor shall conduct extreme care for the excavation of soils on this project to maintain soil separation of the naturally occurring soil Horizon or Layers. This is to allow for the soils in the different horizons to be restored to their native layers. In addition at least 6 inches of topsoil shall be salvaged and reinstalled as a top dressing.

Turf Establishment

Areas disturbed on the project will be will be restored with:

Sod ..... Type Lawn

Seeding ..... Mix 25-131

Erosion Blanket.....Category 3

Dewatering

The project will not include dewatering the entire project. The Contractor shall be responsible for obtaining a Water Appropriation Permit from the Department of Natural Resources (DNR) if necessary. The Contractor will also be responsible for obtaining all other necessary permits and approvals, as well as all fees and documentation associated with the permits.

Sanitary Sewer and Watermain

The project consists of the installation of new 8" sanitary sewer and 8" watermain to the Oakledge area.

Area

The project will be contained in approximately 1.04 acres of road rights-of-way and easements. The project is expected to minimize disruption with the use of trench boxes techniques. The impervious area will remain the same.

Sequencing

The activities that will reduce erosion and sedimentation and the general order they are to be completed, is as follows:

General

1. Install stabilized vehicle exit, or use of existing gravel drive approaches.
2. Install silt fence ditch checks and inlet protection at locations around the perimeter as shown on the plans.
3. Install temporary sediment basin/sediment trap outlet at location where trench dewatering discharge is necessary if required by the discharge permit.
4. Trench excavation and backfill for installation of sewer main.

Receiving waters:

Zumbro River. This reach of the Zumbro River **is considered** an "Impaired Waters" by the MPCA web site.

EROSION AND SEDIMENT CONTROL PLAN:

Erosion and Sediment Features

Erosion and Sediment control features are shown on the project plans and described in Sections 2573 and 2575 of the Special Provisions. These documents shall be considered attached to this SWPPP.

Temporary erosion control features include:

1. Temporary seeding and mulching
2. Temporary sedimentation basin for dewatering if required by to the discharge permit.

Permanent turf establishment features include:

1. Permanent sodding.
2. Seeding with erosion control blanket

Sediment control features include:

1. Inlet Protection
2. Temporary sedimentation basin for dewatering operations, if required
3. Silt fence
4. Stabilized vehicle entrances
5. Ditch checking biorolls

Timing:

1. Install silt fence prior to excavation operations.
2. Install inlet protection prior to excavation.
3. Install permanent turf establishment within two weeks of installation of sewer and watermains.

MAINTENANCE / INSPECTION PROCEDURES:

Inspection and maintenance practices:

In addition to complying with the requirements of the NPDES permit, the Erosion Control Supervisor shall complete the inspection and maintenance practices that will be used to maintain erosion and sediment controls on a website provided by the City (PermiTrack) as follows:

1. All control measures will be inspected at least once each week and following any storm event of 0.5 inches or greater.
2. All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of report.
3. Build up of sediment will be removed from silt fence before it has reached one-third the height of the fence.
4. Silt fence will be inspected for depth of sediment, tears, to see if fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
5. Build up of sediment will be removed from behind ditch checks before it has reached one-third the height of the ditch check.
6. Buildup of sediment will be removed from the temporary sediment basin / sediment trap before it has reached one half of the height of the weir wall.
7. Temporary and permanent seeding and mulch will be inspected for bare spots, washouts, and healthy growth.
8. Construction site vehicle exit locations must be inspected for evidence of off-site tracking onto paved surfaces. Tracked sediment must be removed from off-site paved surfaces within 24 hours of discovery.
9. A maintenance/inspection report will be written after each inspection. The report should include:
    a. Date and time of inspections
    b. Name of persons conducting inspections
    c. Findings of inspections, including recommendations for corrective actions
    d. Corrective actions taken since last inspection (including dates, times, and party completing maintenance activities)

e. Date and amount of rainfall events since last inspection report
f. Documentation of changes made to SWPPP

10. The Erosion Control Supervisor will be responsible for inspection of all erosion control materials and writing the inspection and maintenance report. The Contractor and /or their sub-contractor will be responsible for all maintenance and repair activities deemed necessary by the Engineer or Erosion Control Supervisor.

POLLUTION PREVENTION MANAGEMENT MEASURES:

The following pollution prevention measures shall be implemented:

Solid Waste:

1. Non-hazardous waste such as collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes shall be stockpiled at an approved location.
2. All non-hazardous waste shall be disposed of properly and in accordance with MPCA requirements and Mn/DOT Standard Specification 2104.

Hazardous Waste:

1. All hazardous waste such as oil, gasoline, paint, asbestos, and any other hazardous substances must be properly stored. Storage shall including secondary containment or other measures to prevent spills, leaks or other discharges.
2. Access to storage areas must be restricted to prevent vandalism.
3. Storage and disposal of hazardous waste must comply with manufacturers' recommendations and the MPCA requirements.

Construction Vehicle Washing:

1. External washing of trucks and construction vehicles will be limited to a defined staging area. Runoff will be contained and properly disposed of.
2. Engine degreasing is not allowed on site.
3. Concrete trucks are to wash out or discharge surplus concrete or drum wash water within a designated location away from stormwater drains and waterways. All liquid or solid waste from concrete washout operations must be contained in a leak-proof container or impermeable liner to minimize groundwater impacts, and disposed at an approved location.

Minnesota Pollution Control Agency

Complete your application online!

Application for General Stormwater Permit for Construction Activity (MN R100001)

National Pollutant Discharge Elimination System / State Disposal System (NPDES/SDS)

Please submit to: Minnesota Pollution Control Agency
Construction Stormwater Permit Program
520 Lafayette Road North, St. Paul, MN 55155-4194

PLEASE READ: This form is for new permit applications only. Use the Notice of Termination/Permit Modification form to transfer permit coverage for a project or a portion of a project to a new owner/contractor. Forms are available at the MPCA's Construction Stormwater Web site: www.pca.state.mn.us/water/stormwater/stormwater-c.html. Complete your application online!

Please refer to the application instructions and the NPDES/SDS General Stormwater Permit for Construction Activity (MN R100001) as you complete this form. Brackets '[ ]' refer to specific parts of the permit. For assistance, call the Stormwater Program at 651-757-2119 or toll-free at 800-657-3804.

Are you ready to apply?

1. Stormwater Pollution Prevention Plan (SWPPP)

a. Has a Stormwater Pollution Prevention Plan been developed for this project and incorporated into the project's plans and specifications [Part III.A] — ☒ Yes ☐ No

b. If an environmental review was required for this project or a common plan of development or sale that includes this project, has the environmental review been completed and all stormwater mitigative requirements been incorporated in the SWPPP as required in Part III.A.6 of the permit? — ☐ Yes ☐ No ☒ NA

2. Discharges to Special or Impaired Waters

a. If any portion of the project has a discharge point within 1 mile of a special water or a water that is impaired for sediment or a sediment related parameter (see Appendix A.B), does the SWPPP contain the additional requirements found in Appendix A, Part A-C? If the project does not have a discharge point within 1 mile of a special water or a water that is impaired for sediment or a sediment related parameter of the permit indicate "NA" — ☒ Yes ☐ No ☐ NA

b. If this project is discharging to a Calcareous fen, has an approval letter been obtained from the DNR as required in Part III.A.8 of the permit? — ☐ Yes ☐ No ☒ NA

STOP if you responded 'No' to any question above. A SWPPP must be developed prior to submitting a permit application. Complete the above requirements and check 'Yes' before submitting this application. Continue if you responded 'Yes' or 'NA' to all questions above.

3. Additional Application Review:

a. Will the project include alternative treatment methods? [Part III.C.5] If yes, this application and the alternative treatment plans must be submitted a minimum of 90 days before construction starts. — ☐ Yes ☒ No

b. If yes, are the plans attached? — ☐ Yes ☒ No

c. Will the project disturb 50 acres? AND Is there a discharge point within one mile of an impaired or special water whose discharge may reach an impaired or special water listed in Appendix A of the permit? [Part II.B.1.b] If yes, this application and the SWPPP must be submitted a minimum of 30 days before construction starts. — ☐ Yes ☒ No

d. If 'Yes,' is the SWPPP attached? — ☐ Yes ☒ No

4. Application Fee:

Is the required $400 Application Fee (payable to the MPCA) enclosed? ☒ Yes

Construction Activity Information

5. Project name: Sanitary Sewer and Watermain to serve Oak Ledge

6. Project location:

a. Briefly describe where the construction activity occurs (For example: "Intersection of 45th St. and Irving Ave.") Include address if available: Near Oak Ledge subdivision South of Maywood Road

b. All cities where project will occur: Rochester

c. All counties where project will occur: Olmsted

d. All townships where project will occur: Rochester

e. Project ZIP Code: 55920

f. Latitude and longitude of approximate centroid of project:

Latitude:	43.9952 °	N (decimal) *Preferred*	*Longitude:*	92.4772 °	W (decimal) *Preferred*
	__ ° __ ' __	N (degrees, minutes, seconds)		__ ° __ ' __	W (degrees, minutes, seconds)

g. Method used to collect latitude and longitude:

☐ GPS

☐ USGS Topographic map — Map scale: _____

☒ Other

7. Project size:

Number of acres to be disturbed to the nearest quarter acre: 1.0

8. Project map:

A map must be included with the application for all projects disturbing 50 acres or more. Is a project map included? ☐ Yes ☒ No

9. Project type:

☐ Residential
☐ Commercial / Industrial
☐ Road construction
☐ Residential / Road construction
☐ Commercial / Road construction
☐ Commercial / Residential / Road construction
☒ Other: Utility extension

10. Cumulative impervious surface:

a. Existing area of impervious surface in acres: 0.05

b. Post-construction area of impervious surface in acres (If additional new impervious surface created by the project is less than one acre, skip to Question 12): 0.05

11. Permanent stormwater management:

- ☐ Wet sedimentation basin
- ☐ Infiltration / filtration
- ☐ Regional ponding
- ☐ Other (Use only if there is no feasible way of installing the treatment systems listed above for reasons such as lack of right-of-way or proximity to bedrock)
- ☐ Alternative methods (If using alternative methods, construction cannot commence until receiving approval from the MPCA.)

12. Receiving waters:

Identify surface waters within one mile of project boundary that will receive storm water from the site or discharge from permanent Stormwater management system. Include waters shown on USGS 7.5 minute quad or equivalent, all Special Waters and Impaired waters identified in Appendix A of the permit (To find Special or Impaired Waters, use the Special and Impaired Waters Search tool at www.pca.state.mn.us/water/stormwater/stormwater-c.html.

The Impaired Waters* list, also known as the Section 303(d) list can be found at http://www.pca.state.mn.us/water/tmdl/index.html Use additional paper if necessary.

* Impaired waters for the purpose of this permit are those identified as impaired for the following pollutant(s) or stressor(s): phosphorus, turbidity, dissolved oxygen, or biotic impairment

Name of water body	**Type of water body** (Ditch, pond, wetland, stream, river)	**Special Water?** See Stormwater Permit, Appendix A	**Impaired Water?** See Stormwater Permit, Appendix A
South Fork Zumbro River	river	☐ Yes ☒ No	☒ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No
		☐ Yes ☐ No	☐ Yes ☐ No

13. Dates of construction

a. Start date: 9 / 15 / 14

b. Estimated Completion date: 11 / 15 / 14

STOP This form will not be accepted if the Owner and Contractor contact information sections, below, are BOTH not completed and signed. If the owner is also the contractor, or a contractor hasn't yet been selected, the owner must also fill out the contractor information section and sign again.

Responsible parties — BOTH PARTIES MUST SIGN

Owner

City of Rochester			
Business or firm name			
Freese	Richard	Public Works Director	
Last name	First name	Title	
rfreese@rochestermn.gov		507-328-2426	
E-mail		Phone (include area code)	
201 4th St SE, room 108	Rochester	MN	55904-3708
Mailing address	City	State	ZIP Code
Mike Kraszewski	mkraszewski@rochestermn.gov	507-328-2431	
Alternate contact name	E-mail	Phone (include area code)	

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or the persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the NPDES/SDS General Stormwater Permit Construction Activity (MN R100001) that authorizes stormwater discharges associated with the construction site identified on this form.

X Authorized signature: _____ Date: _____

This Application must be signed by:

- ***Corporation:** a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.*
- ***Partnership or Sole Proprietorship:** a general partner or the proprietor.*
- ***Municipality, State, Federal or Other Public Agency:** principal executive officer or ranking elected official.*

Contractor

Business or firm name			
Last name	First name	Title	
E-mail		Phone (include area code)	
Mailing address	City	State	ZIP Code
Alternate contact name	E-mail	Phone (include area code)	

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or the persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the NPDES/SDS General Stormwater Permit Construction Activity (MN R100001) that authorizes stormwater discharges associated with the construction site identified on this form.

X Authorized signature: _____ Date: _____

This Application must be signed by:

- ***Corporation:** a principal executive officer of at least the level of vice-president or the duly authorized representative or agent of the executive officer if the representative or agent is responsible for the overall operation of the facility that is the subject of the permit application.*
- ***Partnership or Sole Proprietorship:** a general partner or the proprietor.*

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ATTACHMENTS TO THE SPECIAL PROVISIONS

Department of Public Works
201 4th Street SE, Room 108
Rochester, MN 55904-3740
(507) 328-2400

GEOTECHNICAL REPORT

The geotechnical report is __23____ pages.

Geotechnical Evaluation Report

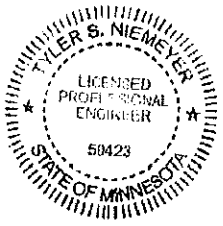
Oak Ledge Utility Improvements
20th Street SW
Rochester, Minnesota

Prepared for

WHKS & Co.

Professional Certification:
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Niemeyer, Tyler
Aug 7 2014 4:47 PM



Tyler S. Niemeyer, PE
Project Engineer
License Number: 50423
August 7, 2014

Project B14-03982

Braun Intertec Corporation

BRAUN INTERTEC

Braun Intertec Corporation
4210 Highway 14 East
Rochester, MN 55904

Phone: 507.281.2515
Fax: 507.281.5303
Web: braunintertec.com

August 7, 2014

Project B14-03982

Tim Hruska, PE
WHKS & Co.
2905 South Broadway
Rochester, MN 55904

Re: Geotechnical Evaluation
Oak Ledge Utility Improvements
20th Street SW
Rochester, Minnesota

Dear Mr. Hruska:

We are pleased to present this Geotechnical Evaluation Report for the proposed sanitary sewer and watermain improvements between 20th Street SW and the Crossroads College campus in Rochester, Minnesota. A summary of our results, and a summary of our recommendations in light of the geotechnical issues influencing design and construction, is presented below. More detailed results, analysis and recommendations are presented in the attached report.

Summary of Results

The borings generally encountered ½ to 5 feet of topsoil and uncontrolled fill over Platteville Formation limestone and Decorah Formation shale. The limestone appeared to have a highly weathered surface, as we were able to penetrate the limestone approximately 2½ to 4½ feet with our hollow stem auger before encountering auger refusal. The Decorah Shale was generally decomposed (weathered to a soil-like consistency) to moderately weathered. Penetration resistance values recorded in the Decorah Formation shale indicated the upper portions of the shale were weathered to the consistency of soil, but the shale became less weathered with increasing depth.

Groundwater was not observed as our borings were advanced. The project team should, however, be aware that perched groundwater could collect and/or travel laterally within or along the surface of the Decorah and Platteville Formations. Seasonal and annual fluctuations of the groundwater should also be anticipated.

Summary of Recommendations

The site soils, Decorah Shale, and highly fractured Limestone are Type C Soils under OSHA guidelines. Unsupported excavations should therefore be maintained at a gradient no steeper than 1½:1 (horizontal:vertical).

Where shale and limestone are present below the utility excavations, we recommend removing the shale or limestone to a minimum of 1 foot below the utility invert elevations and backfilling the sub-excavation

with crushed aggregate. After sub-cutting and installation of the utilities, we recommend bedding the utilities with sand containing fewer than 12 percent particles by weight passing the #200 sieve.

The excavated soils and bedrock are generally considered suitable for reuse as trench backfill in green areas. We do, however, recommend that excavated limestone reused as trench backfill be restricted to a maximum particle size of 6 inches.

Excavated Decorah Shale is considered unsuitable for reuse as trench backfill below paved areas. These areas of the trenches should be backfilled with one of the following materials:

- On-site sandy lean clays free of organics and debris;
- Excavated limestone having a maximum particle size of 3 inches; or
- Imported material consisting of sand, silty sand, clayey sand, sandy lean clay or lean clay. We recommend, however, that the plastic index of these materials not exceed 15.

The Decorah Shale is considered corrosive and pipe bedding should be designed to isolate the utilities from direct contact with the shale (see recommendations above). Given the presence of Decorah Shale, we also recommend providing corrosion protection for ductile iron pipe and specifying concrete utilities contain Type II cement.

Remarks

Thank you for making Braun Intertec your geotechnical consultant for this project. If you have questions about this report, or if there are other services that we can provide in support of our work to date, please contact Tyler Niemeyer at 507.281.2515 or tniemeyer@braunintertec.com.

Sincerely,

BRAUN INTERTEC CORPORATION

Niemeyer, Tyler
Aug 7 2014 4:46 PM

Tyler S. Niemeyer, PE
Project Engineer

Erie, Cyle
Aug 7 2014 4:45 PM

Cyle N. Erie, PE
Principal / Senior Engineer

Table of Contents

Description **Page**

Table of Contents (continued)

Description **Page**

Appendix

A. Introduction

A.1. Project Description

This Geotechnical Evaluation Report addresses the proposed sanitary sewer and watermain improvements between 20th Street SW and the Crossroads College campus in Rochester, Minnesota. We understand the proposed sanitary sewer will run from Crossroads College to the private cul-de-sac west of the college and will be installed to depths of up to 18 feet below the ground surface. The new watermain will run along the same alignment as the sanitary sewer, but will also include connecting the existing watermain along 20th Street SW to the private cul-de-sac described above.

A.2. Purpose

The purpose of this geotechnical evaluation is to characterize the subsurface geologic conditions at the selected exploration locations and evaluate their impact on the design and construction of the proposed utilities and reconstructed pavements.

A.3. Background Information and Reference Documents

To facilitate our evaluation, we were provided with or reviewed the following information or documents:

- An aerial photograph of the site showing the project boundaries and approximate locations of existing utilities.
- Minnesota Geological Survey atlases prepared by Olson and Hobbs in 1988, detailing the surficial and bedrock geology of Olmsted County.

A.4. Scope of Services

Our scope of services for this project was originally submitted on June 20th, 2014 as a Proposal to Mr. Tim Hruska of WHKS & Co. (WHKS), from whom we later received authorization to proceed. Our scope of services was performed under the terms of the Professional Services Agreement dated November 21, 2012. Tasks performed in accordance with our authorized scope of services included:

- Staking exploration locations and coordinating the locating of underground utilities in the project area through Gopher State One Call.

- Performing five penetration test borings to a depth of 20 feet or refusal on bedrock (whichever was shallower). Due to access conflicts, this scope was later reduced to four borings to a depth of 20 feet or refusal on bedrock.
- Performing laboratory tests on selected penetration test samples.
- Preparing this report containing a project sketch, exploration logs, a summary of the geologic materials encountered, results of laboratory tests, and recommendations for the design of the proposed utilities and pavements.

We staked the boring locations at the approximate locations discussed with the design team. WHKS personnel surveyed the drilled locations and provided us with boring coordinates and ground surface elevations. The approximate boring locations are shown on the Soil Boring Location Sketch, included in the Appendix.

B. Results

B.1. Exploration Logs

B.1.a. Log of Boring Sheets

Log of Boring sheets for our penetration test borings are included in the Appendix. The logs identify and describe the geologic materials that were penetrated, and present the results of penetration resistance tests performed within them, laboratory tests performed on penetration test samples retrieved from them, and groundwater measurements.

Strata boundaries were inferred from changes in the penetration test samples and the auger cuttings. Because sampling was not performed continuously, the strata boundary depths are only approximate. The boundary depths likely vary away from the boring locations, and the boundaries themselves may also occur as gradual rather than abrupt transitions.

B.1.b. Geologic Origins

Geologic origins assigned to the materials shown on the logs and referenced within this report were based on: (1) a review of the background information and reference documents cited above, (2) visual classification of the various geologic material samples retrieved during the course of our subsurface

exploration, (3) penetration resistance testing performed for the project, (4) laboratory test results, and (5) available common knowledge of the geologic processes and environments that have impacted the site and surrounding area in the past.

B.2. Geologic Profile

B.2.a. Geologic Materials

The borings generally encountered ½ to 5 feet of topsoil and uncontrolled fill consisting of lean clays and sandy lean clays that were brown to black in color and wet. Penetration resistance values recorded in the uncontrolled fill ranged from 6 to 7 blows per foot (BPF), indicating the fill is poorly compacted.

B.2.b. Platteville Formation Limestone

Below the topsoil and fill, Borings ST-1 and ST-2 encountered Platteville Formation limestone at depths of about ½ and 5 feet, respectively. The limestone appeared to have a highly weathered surface, as we were able to penetrate the limestone approximately 2½ to 4½ feet with our hollow stem auger before encountering auger refusal. The limestone was retrieved as silty gravel with sand (GM) and clayey gravel with sand (GC) in the split spoon samples.

B.2.c. Dacorah Formation Shale

Borings ST-3 and ST-4 encountered Decorah Formation shale at depths ranging from approximately ½ to 4 feet. The Decorah Shale was green and brown in color, wet, and generally decomposed (weathered to a soil-like consistency) to moderately weathered. The shale was retrieved as fat clay (CH) in our the split spoon samples. Penetration resistance values recorded in the Decorah Formation shale ranged from 7 BPF to 50 blows for a 5 inch set. These penetration resistance values indicate the upper portions of the shale were weathered to the consistency of soil, but the shale became less weathered with increasing depth.

B.2.d. Groundwater

Groundwater was not observed as our borings were advanced. The project team should, however, be aware that perched groundwater could collect and/or travel laterally within or along the surface of the Decorah and Platteville Formations. Seasonal and annual fluctuations of the groundwater should also be anticipated.

B.3. Laboratory Test Results

The moisture content of the sandy lean clay fill ranged from approximately 14 to 27 percent, indicating that these soils were likely near or above their probable optimum moisture contents.
The moisture content of the Decorah Formation shale ranged from approximately 25 to 30 percent. Given the upper portions of the Decorah Formation are decomposed to the consistency of fat clay (CH), this material is likely near or above its probably optimum moisture content.

C. Basis for Recommendations

C.1. Design Details

Based on our conversations with WHKS, we understand the proposed sanitary sewer alignment will include from Crossroads College to the private cul-de-sac west of the college and will be installed to depths of up to 18 feet below the ground surface. The new watermain alignment will include the same alignment as the sanitary sewer, but will also include connecting the existing watermain along 20th Street SW to the private cul-de-sac described above. The utilities will be installed using open-cut trench methods.

We have attempted to describe our understanding of the proposed construction to the extent it was reported to us by others. Depending on the extent of available information, assumptions may have been made based on our experience with similar projects. If we have not correctly recorded or interpreted the project details, we should be notified. New or changed information could require additional evaluation, analyses and/or recommendations.

C.2. Design and Construction Considerations

The geotechnical issues influencing design of the proposed utilities appear to be limited to the following considerations:

- Due to its organic content, the topsoil is not considered suitable for use as utility backfill below paved areas.

- The Decorah Shale is documented to have expansive properties and is generally considered corrosive, and is therefore unsuitable for direct support of the utilities, or in pipe bedding zones.
- Based on the results of our borings, we anticipate the Decorah Shale can be excavated with conventional excavation equipment (excavators equipped with ripping teeth).
- The design team and contractor should also be aware that, due to its propensity for volume changes due to variations in moisture content, excavated Decorah Shale is not suitable for reused as backfill or fill below pavement sections. Given proper pipe bedding is installed, however, excavated Decorah Shale can be placed as trench backfill in green areas.
- Where utility excavations encounter limestone bedrock, the trenches should be subcut to accommodate placement of crushed rock to provide more uniform support of the utilities.
- We anticipate portions of the limestone bedrock surface can be excavated with an excavator equipped with ripping teeth, but areas of the bedrock below our auger refusal depths may require pneumatic hammers or blasting to remove the limestone.
- The on-site sandy lean clays generally appear suitable for use as general utility backfill material, but these soils generally appear to be wet and may require moisture conditioning (drying) to meet compaction requirements below paved areas.

D. Recommendations

D.1.a. Excavation Support

The site soils, Decorah Shale, and highly fractured Limestone are Type C Soils under OSHA guidelines. Unsupported excavations should therefore be maintained at a gradient no steeper than 1½:1 (horizontal:vertical).

D.1.b. Utility Subgrade Preparation

We do not recommend supporting utilities on the shale bedrock. Where shale is present below the utility excavations, we recommend removing the shale to a minimum of 1 foot below the utility invert elevations and backfilling the sub-excavation with crushed aggregate. After sub-cutting of the underlying shale and installation of the utilities, we recommend bedding the utilities with sand can containing fewer than 12 percent particles by weight passing the #200 sieve.

Where utility excavations encounter limestone bedrock, we also recommend overcutting the utility trenches by a minimum of 1 foot to accommodate installation of a crushed aggregate subbase to provide

more uniform support of the utilities. As with areas within the shale, we anticipate utilities can be bedded in accordance with the manufacturers' specifications.

D.1.c. Selection, Placement and Compaction of Backfill

As noted above, the excavated soils and bedrock are generally considered suitable for reuse as trench backfill in green areas. We do, however, recommend that excavated limestone reused as trench backfill be restricted to a maximum particle size of 6 inches.

Excavated Decorah Shale is considered unsuitable for reuse as trench backfill below paved areas. These areas of the trenches should be backfilled with the one of the following materials:

- On-site sandy lean clays free of organics and debris;
- Excavated limestone having a maximum particle size of 3 inches; or
- Imported material consisting of sand, silty sand, clayey sand, sandy lean clay or lean clay. We recommend, however, that the plastic index of these materials not exceed 15.

We recommend using material containing fewer than 12 percent particles by weight passing the #200 sieve in the following areas. Material meeting the Minnesota Department of Transportation (MnDOT) Specification 3149.D.3 is acceptable.

- Pipe bedding zone and the initial backfill zone (including a minimum of 1 foot over the top of utility pipes);
- Within the upper 2 feet of pavement subgrade elevations (pavement subgrade is defined as the bottom elevation of the aggregate base section).

We recommend compacting excavation backfill (including utility backfill) placed within 3 feet of pavement subgrade elevations to a minimum of 100 percent of their maximum standard Proctor dry densities, as determined in accordance with ASTM International (ASTM) Test Method D698. The minimum compaction level may be reduced to 95 percent of standard Proctor density for backfill and fill placed below the upper 3 feet of pavement subgrade elevations. In order to facilitate proper compaction, backfill and fill placed below pavements should be placed at a moisture range of 1 percent below to 3 percent above their optimum moisture contents.

In green areas, backfill and fill should be compacted to 90 percent of standard Proctor density at moisture contents within 5 percent of optimum moisture contents.

D.1.d. Corrosion Potential

The Decorah Shale is considered corrosive and pipe bedding should be designed to isolate the utilities from direct contact with the shale (see recommendations above). Given the presence of Decorah Shale, we also recommend providing corrosion protection for ductile iron pipe and specifying concrete utilities contain Type II cement.

D.2. Construction Quality Control

D.2.a. Excavation Observations

We recommend having a geotechnical engineer observe all excavations related to subgrade preparation and pavement construction. The purpose of the observations is to evaluate the competence of the geologic materials exposed in the excavations.

D.2.b. Materials Testing

We recommend density tests be taken in excavation backfill and additional required fill placed below the pavements.

D.2.c. Pavement Subgrade Proof-Roll

We recommend that proof-rolling of the pavement subgrades be observed by a geotechnical engineer to determine if the results of the procedure meet project specifications, or delineate the extent of additional pavement subgrade preparation work.

D.2.d. Cold Weather Precautions

If site grading and construction is anticipated during cold weather, all snow and ice should be removed from cut and fill areas prior to additional grading. No fill should be placed on frozen subgrades. No frozen soils should be used as fill.

Concrete delivered to the site should meet the temperature requirements of ASTM C 94. Concrete should not be placed on frozen subgrades. Concrete should be protected from freezing until the necessary strength is attained. Frost should not be permitted to penetrate below footings.

E. Procedures

E.1. Penetration Test Borings

The penetration test borings were drilled with an ATV-mounted core and auger drill equipped with hollow-stem auger. The borings were performed in accordance with ASTM D 1586. Penetration test samples were taken at 2 ½-foot intervals. Actual sample intervals and corresponding depths are shown on the boring logs.

E.2. Material Classification and Testing

E.2.a. Visual and Manual Classification

The geologic materials encountered were visually and manually classified in accordance with ASTM Standard Practice D 2488. A chart explaining the classification system is attached. Samples were placed in jars and returned to our facility for review and storage.

E.2.b. Laboratory Testing

The results of the laboratory tests performed on geologic material samples are noted on or follow the appropriate attached exploration logs. The tests were performed in accordance with ASTM procedures.

E.3. Groundwater Measurements

The drillers checked for groundwater as the penetration test borings were advanced, and again after auger withdrawal. The boreholes were then backfilled as noted on the boring logs.

F. Qualifications

F.1. Variations in Subsurface Conditions

F.1.a. Material Strata

Our evaluation, analyses and recommendations were developed from a limited amount of site and subsurface information. It is not standard engineering practice to retrieve material samples from exploration locations continuously with depth, and therefore strata boundaries and thicknesses must be inferred to some extent. Strata boundaries may also be gradual transitions, and can be expected to vary in depth, elevation and thickness away from the exploration locations.

Variations in subsurface conditions present between exploration locations may not be revealed until additional exploration work is completed, or construction commences. If any such variations are revealed, our recommendations should be re-evaluated. Such variations could increase construction costs, and a contingency should be provided to accommodate them.

F.1.b. Groundwater Levels

Groundwater measurements were made under the conditions reported herein and shown on the exploration logs, and interpreted in the text of this report. It should be noted that the observation periods were relatively short, and groundwater can be expected to fluctuate in response to rainfall, flooding, irrigation, seasonal freezing and thawing, surface drainage modifications and other seasonal and annual factors.

F.2. Continuity of Professional Responsibility

F.2.a. Plan Review

This report is based on a limited amount of information, and a number of assumptions were necessary to help us develop our recommendations. It is recommended that our firm review the geotechnical aspects of the designs and specifications, and evaluate whether the design is as expected, if any design changes have affected the validity of our recommendations, and if our recommendations have been correctly interpreted and implemented in the designs and specifications.

F.2.b. Construction Observations and Testing

It is recommended that we be retained to perform observations and tests during construction. This will allow correlation of the subsurface conditions encountered during construction with those encountered by the borings, and provide continuity of professional responsibility.

F.3. Use of Report

This report is for the exclusive use of WHKS & Co, the City of Rochester, and their design and construction team. Without written approval, we assume no responsibility to other parties regarding this report. Our evaluation, analyses and recommendations may not be appropriate for other parties or projects.

F.4. Standard of Care

In performing its services, Braun Intertec used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession currently practicing in the same locality. No warranty, express or implied, is made.

Appendix

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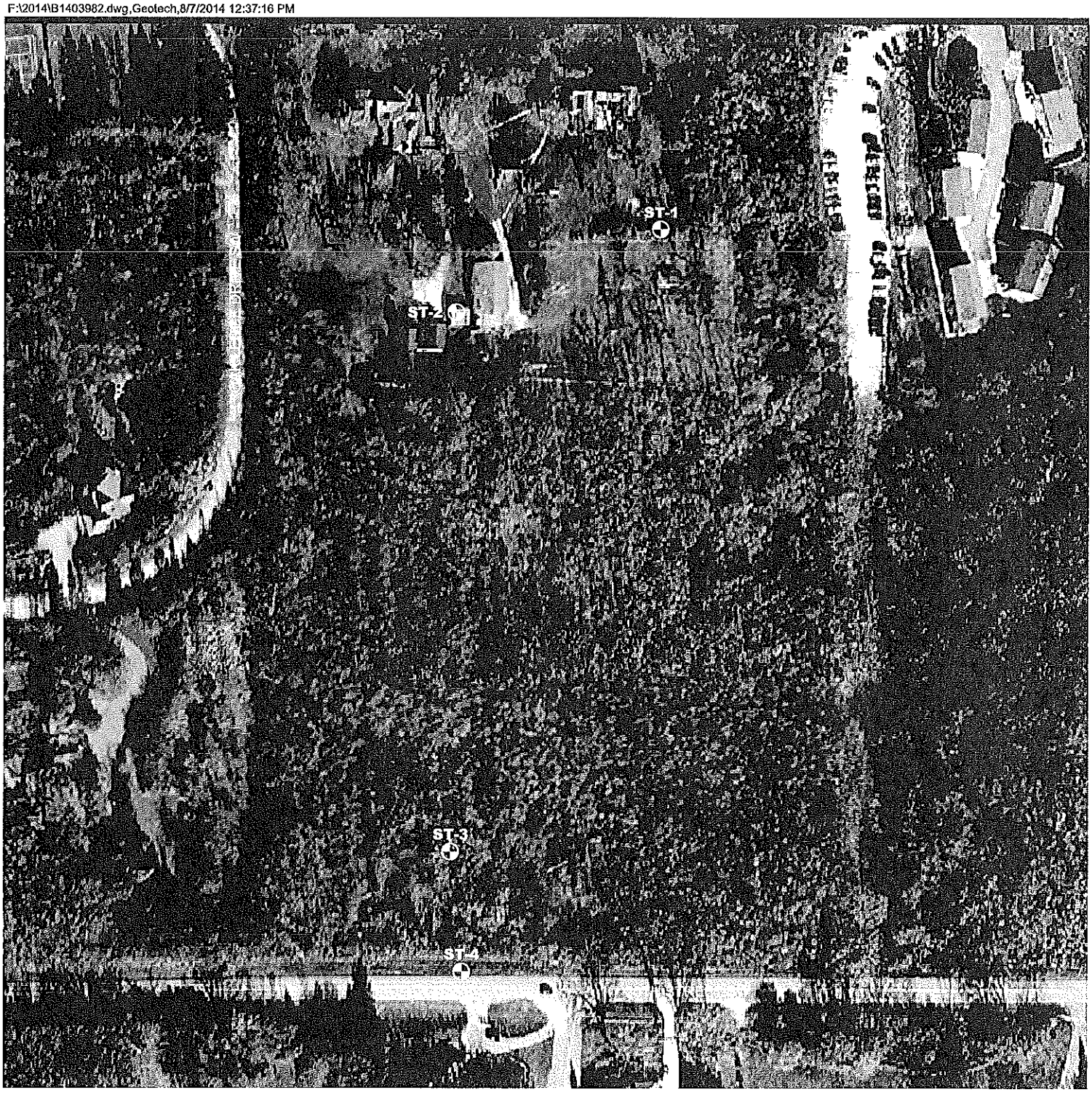

DENOTES APPROXIMATE LOCATION OF STANDARD PENETRATION TEST BORING

N

75' 0 150'

SCALE: 1"= 150'

Sheet: of

Fig:

Project No:	B1403982
Drawing No:	B1403982
Scale:	1"= 200'
Drawn By:	JAG
Date Drawn:	8/7/14
Checked By:	TSN
Last Modified:	8/7/14

SOIL BORING LOCATION SKETCH
GEOTECHNICAL EVALUATION
OAK LEDGE UTILITY IMPROVEMENTS
20TH STREET SW
ROCHESTER, MINNESOTA

BRAUN INTERTEC
11001 Hampshire Avenue So.
Minneapolis, MN 55438
PH. (952) 995-2000
FAX (952) 995-2020

BRAUN INTERTEC

LOG OF BORING

Braun Project B14-03982
Geotechnical Evaluation
Oak Ledge Utility Improvements
20th Street SW
Rochester, Minnesota

BORING: **ST-1**

LOCATION: See attached sketch.

DRILLER: B. Oldenberg | METHOD: 3 1/4" HSA, Autohammer | DATE: **6/24/14** | SCALE: **1" = 4'**

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	Tests or Notes
1105.0	0.0					
1104.5	0.5	CL / LS	LEAN CLAY, trace Sand and roots, dark brown, wet. (Topsoil)			
			PLATTEVILLE FORMATION, LIMESTONE, brown and light gray, moist, decomposed to highly weathered, very fine- to fine-grained. Retrieved as "Silty Gravel with Sand (GM)" in split-spoon sampler.	62		
1100.1	4.9		END OF BORING - REFUSAL TO AUGER.	*		*50/5 (set)
			Water not observed with 4 1/2 feet of hollow stem auger in the ground.			
			Water not observed to cave-in depth of 4 feet immediately after withdrawal of auger.			
			Boring then backfilled.			

(See Descriptive Terminology sheet for explanation of abbreviations)

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BRAUN INTERTEC

LOG OF BORING

Braun Project B14-03982
Geotechnical Evaluation
Oak Ledge Utility Improvements
20th Street SW
Rochester, Minnesota

BORING: **ST-2**

LOCATION: See attached sketch.

DRILLER: B. Oldenberg | METHOD: 3 1/4" HSA, Autohammer | DATE: **6/24/14** | SCALE: **1" = 4'**

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	Tests or Notes
1112.0	0.0						
1111.0	1.0	FILL	FILL: Lean Clay, trace Sand and roots, dark brown, wet.				
		FILL	FILL: Sandy Lean Clay, trace Gravel, dark brown and brown, wet.	7		27	
1107.0	5.0	LS	PLATTEVILLE FORMATION, LIMESTONE, brown and light gray, moist, decomposed to highly weathered, very fine- to fine-grained. Retrieved as "Clayey Gravel with Sand (GC)" in split-spoon sampler.	24			
1104.5	7.5		END OF BORING - REFUSAL TO AUGER.	*			*50/5 (set)
			Water not observed with 7 feet of hollow stem auger in the ground.				
			Boring then backfilled.				

(See Descriptive Terminology sheet for explanation of abbreviations)

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BRAUN INTERTEC

LOG OF BORING

Braun Project B14-03982
Geotechnical Evaluation
Oak Ledge Utility Improvements
20th Street SW
Rochester, Minnesota

BORING: **ST-3**

LOCATION: See attached sketch.

DRILLER: B. Oldenberg | METHOD: 3 1/4" HSA, Autohammer | DATE: **6/24/14** | SCALE: **1" = 4'**

(See Descriptive Terminology sheet for explanation of abbreviations)

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	Tests or Notes
1124.7	0.0	CL	LEAN CLAY, with roots and trace of Sand, black, wet. (Topsoil)	7		26	
1120.7	4.0	SH	DECORAH FORMATION, SHALE, green and brown, wet, decomposed to highly weathered, very fine- to fine-grained. Hand-deformed sample classified as "Fat Clay (CH)."	10			
				7		30	
				11			
				14			
1109.2	15.5			44			
		SH	DECORAH FORMATION, SHALE, gray and green, moist to dry, highly to moderately weathered, very fine-grained, fossiliferous. Retrieved as "Fat Clay (CH)" and 1/2 to 2-inch lengths of Shale in split-spoon sampler.	*			*15/6" (set), 50/5"
1103.7	21.0			41			
			END OF BORING. Water not observed with 19 1/2 feet of hollow stem auger in the ground. Water not observed to cave-in depth of 16 feet immediately after withdrawal of auger. Boring then backfilled.				

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BRAUN INTERTEC

LOG OF BORING

Braun Project B14-03982
Geotechnical Evaluation
Oak Ledge Utility Improvements
20th Street SW
Rochester, Minnesota

BORING: **ST-4**

LOCATION: See attached sketch.

DRILLER: B. Oldenberg | METHOD: 3 1/4" HSA, Autohammer | DATE: **6/24/14** | SCALE: **1" = 4'**

(See Descriptive Terminology sheet for explanation of abbreviations)

Elev. feet	Depth feet	Symbol	Description of Materials (Soil-ASTM D2488 or D2487, Rock-USACE EM1110-1-2908)	BPF	WL	MC %	Tests or Notes
1136.7	0.0	FILL	FILL: Sandy Lean Clay, with Gravel and roots, dark brown, wet.				
1133.7	3.0	SH	DECORAH FORMATION, SHALE, green and light brown, moist to wet, decomposed to highly weathered, very fine-grained. Hand deformed sample classified as "Fat Clay (CH)."	6		14	
				21			
				23		25	
				24			
				27			
				30			
				28			
1117.7	19.0	SH	DECORAH FORMATION, SHALE, green and brown, moist, decomposed to highly weathered, very fine-grained, fossiliferous, with gravel-sized pieces of Limestone. Retrieved as "Fat Clay with Gravel (CH)" in split-spoon sampler.	35			
1115.7	21.0		END OF BORING.				
			Water not observed with 19 1/2 feet of hollow stem auger in the ground.				
			Water not observed to cave-in depth of 17 feet immediately after withdrawal of auger.				
			Boring then backfilled.				

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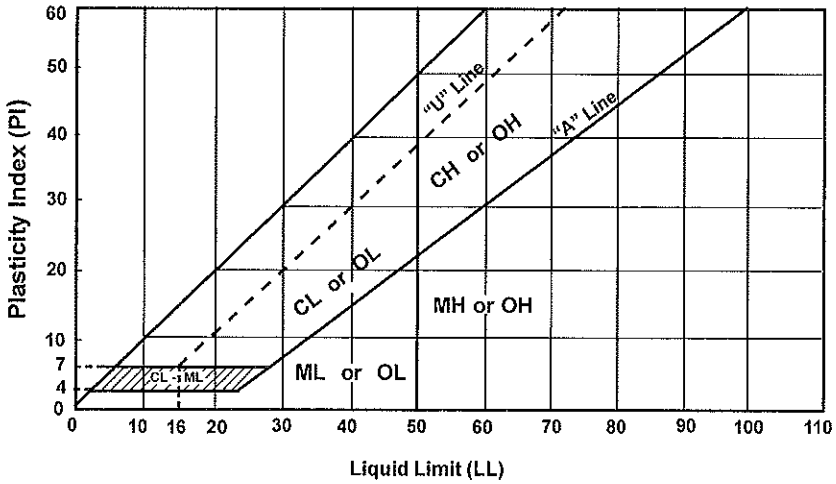
BRAUN INTERTEC

Descriptive Terminology of Soil

Standard D 2487 - 00
Classification of Soils for Engineering Purposes
(Unified Soil Classification System)

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests [a]				Soils Classification	
				Group Symbol	Group Name [b]
Coarse-grained Soils more than 50% retained on No. 200 sieve	Gravels More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels 5% or less fines [e]	$C_u \geq 4$ and $1 \leq C_c \leq 3$ [c]	GW	Well-graded gravel [d]
			$C_u < 4$ and/or $1 > C_c > 3$ [c]	GP	Poorly graded gravel [d]
		Gravels with Fines More than 12% fines [e]	Fines classify as ML or MH	GM	Silty gravel [d f g]
			Fines classify as CL or CH	GC	Clayey gravel [d f g]
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands 5% or less fines [i]	$C_u \geq 6$ and $1 \leq C_c \leq 3$ [c]	SW	Well-graded sand [h]
			$C_u < 6$ and/or $1 > C_c > 3$ [c]	SP	Poorly graded sand [h]
		Sands with Fines More than 12% [i]	Fines classify as ML or MH	SM	Silty sand [f g h]
			Fines classify as CL or CH	SC	Clayey sand [f g h]
Fine-grained Soils 50% or more passed the No. 200 sieve	Silts and Clays Liquid limit less than 50	Inorganic	PI > 7 and plots on or above "A" line [j]	CL	Lean clay [k l m]
			PI < 4 or plots below "A" line [j]	ML	Silt [k l m]
		Organic	Liquid limit - oven dried / Liquid limit - not dried < 0.75	OL	Organic clay [k l m n]
				OL	Organic silt [k l m o]
	Silts and clays Liquid limit 50 or more	Inorganic	PI plots on or above "A" line	CH	Fat clay [k l m]
			PI plots below "A" line	MH	Elastic silt [k l m]
		Organic	Liquid limit - oven dried / Liquid limit - not dried < 0.75	OH	Organic clay [k l m p]
				OH	Organic silt [k l m q]
Highly Organic Soils		Primarily organic matter, dark in color and organic odor		PT	Peat

a. Based on the material passing the 3-in (75mm) sieve.
b. If field sample contained cobbles or boulders, or both, add "with cobbles or boulders or both" to group name.
c. $C_u = D_{60} / D_{10}$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
d. If soil contains ≥15% sand, add "with sand" to group name.
e. Gravels with 5 to 12% fines require dual symbols:
GW-GM well-graded gravel with silt
GW-GC well-graded gravel with clay
GP-GM poorly graded gravel with silt
GP-GC poorly graded gravel with clay
f. If fines classify as CL-ML, use dual symbol GC-GM or SC-SM.
g. If fines are organic, add "with organic fines" to group name.
h. If soil contains ≥ 15% gravel, add "with gravel" to group name.
i. Sands with 5 to 12% fines require dual symbols:
SW-SM well-graded sand with silt
SW-SC well-graded sand with clay
SP-SM poorly graded sand with silt
SP-SC poorly graded sand with clay
j. If Atterberg limits plot in hatched area, soil is a CL-ML, silty clay.
k. If soil contains 10 to 29% plus No. 200, add "with sand" or "with gravel" whichever is predominant.
l. If soil contains ≥30% plus No. 200, predominantly sand, add "sandy" to group name.
m. If soil contains ≥ 30% plus No. 200 predominantly gravel, add "gravelly" to group name.
n. PI ≥ 4 and plots on or above "A" line.
o. PI < 4 or plots below "A" line.
p. PI plots on or above "A" line.
q. PI plots below "A" line.



Laboratory Tests

DD	Dry density, pcf	OC	Organic content, %
WD	Wet density, pcf	S	Percent of saturation, %
MC	Natural moisture content, %	SG	Specific gravity
LL	Liquid limit, %	C	Cohesion, psf
PL	Plastic limit, %	∅	Angle of internal friction
PI	Plasticity index, %	qu	Unconfined compressive strength, psf
P200	% passing 200 sieve	qp	Pocket penetrometer strength, tsf

Particle Size Identification

Boulders	over 12"
Cobbles	3" to 12"
Gravel	
Coarse	3/4" to 3"
Fine	No. 4 to 3/4"
Sand	
Coarse	No. 4 to No. 10
Medium	No. 10 to No. 40
Fine	No. 40 to No. 200
Silt	< No. 200, PI < 4 or below "A" line
Clay	< No. 200, PI ≥ 4 and on or above "A" line

Relative Density of Cohesionless Soils

Very loose	0 to 4 BPF
Loose	5 to 10 BPF
Medium dense	11 to 30 BPF
Dense	31 to 50 BPF
Very dense	over 50 BPF

Consistency of Cohesive Soils

Very soft	0 to 1 BPF
Soft	2 to 3 BPF
Rather soft	4 to 5 BPF
Medium	6 to 8 BPF
Rather stiff	9 to 12 BPF
Stiff	13 to 16 BPF
Very stiff	17 to 30 BPF
Hard	over 30 BPF

Drilling Notes

Standard penetration test borings were advanced by 3 1/4" or 6 1/4" ID hollow-stem augers unless noted otherwise, Jetting water was used to clean out auger prior to sampling only where indicated on logs. Standard penetration test borings are designated by the prefix "ST" (Split Tube). All samples were taken with the standard 2" OD split-tube sampler, except where noted.

Power auger borings were advanced by 4" or 6" diameter continuous-flight, solid-stem augers. Soil classifications and strata depths were inferred from disturbed samples augered to the surface and are, therefore, somewhat approximate. Power auger borings are designated by the prefix "B."

Hand auger borings were advanced manually with a 1 1/2" or 3 1/4" diameter auger and were limited to the depth from which the auger could be manually withdrawn. Hand auger borings are indicated by the prefix "H."

BPF: Numbers indicate blows per foot recorded in standard penetration test, also known as "N" value. The sampler was set 6" into undisturbed soil below the hollow-stem auger. Driving resistances were then counted for second and third 6" increments and added to get BPF. Where they differed significantly, they are reported in the following form: 2/12 for the second and third 6" increments, respectively.

WH: WH indicates the sampler penetrated soil under weight of hammer and rods alone; driving not required.

WR: WR indicates the sampler penetrated soil under weight of rods alone; hammer weight and driving not required.

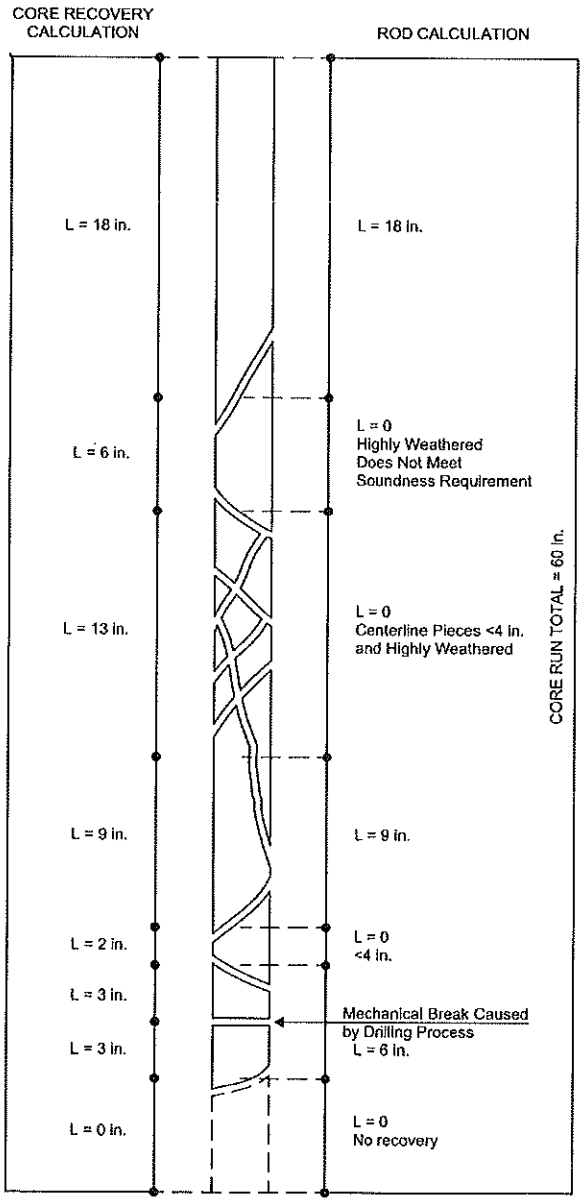
TW indicates thin-walled (undisturbed) tube sample.

Note: All tests were run in general accordance with applicable ASTM standards.

BRAUN INTERTEC

Descriptive Terminology of Rock

Based on U.S. Army Corps of Engineers EM 1110-1-2908



Example Calculations

Core Recovery, CR = $\frac{\text{Total length of rock recovered}}{\text{Total core run length}}$

Example: $CR = \frac{(18 + 6 + 13 + 9 + 2 + 3 + 3)}{(60)}$

CR = 90%

RQD = $\frac{\text{Sum of sound pieces longer than 4 inches}}{\text{Total core run length}}$

RQD Percent	Rock Quality
<25	very poor
25 < 50	poor
50 < 75	fair
75 < 90	good
90 < 100	excellent

Example: $RQD = \frac{(18 + 9 + 4 + 6)}{(60)}$

RQD = 62%

Weathering

Unweathered: No evidence of chemical or mechanical alteration.

Slightly weathered: Slight discoloration on surface, slight alteration along discontinuities, less than 10% of rock volume altered.

Moderately Weathered: Discoloration evident, surface pitted and altered with alteration penetrating well below rock surfaces, weathering halos evident, 10% to 50% of the rock altered.

Highly Weathered: Entire mass discolored, alteration pervading nearly all of the rock, with some pockets of slightly weathered rock noticeable, some mineral leached away.

Decomposed: Rock reduced to a soil consistency with relict rock texture, generally molded and crumbled by hand.

Hardness

Very soft:	Can be deformed by hand
Soft:	Can be scratched with a fingernail
Moderately hard:	Can be scratched easily with a knife
Hard:	Can be scratched with difficulty with a knife
Very hard:	Cannot be scratched with a knife

Texture

Sedimentary Rocks:	Grain Size
Coarse grained	2 – 5 mm
Medium grained	0.4 – 2 mm
Fine grained	0.1 – 0.4 mm
Very fine grained	< 0.1 mm

Igneous and Metamorphic Rocks:	
Coarse grained	5 mm
Medium grained	1 – 5 mm
Fine grained	0.1 – 1 mm
Aphanitic	< 0.1 mm

Thickness of Bedding

Massive:	3 ft. thick or greater
Thick bedded:	1 to 3 ft. thick
Medium bedded:	4 in. to 1 ft. thick
Thin bedded:	4 in. thick or less

Degree of Fracturing (Jointing)

Unfractured:	Fracture spacing 6 ft. or more
Slightly fractured:	Fracture spacing 2 to 6 ft.
Moderately fractured:	Fracture spacing 8 in. to 2 ft.
Highly fractured:	Fracture spacing 2 in. to 8 in.
Intensely fractured:	Fracture spacing 2 in. or less

Department of Public Works
201 4th Street SE, Room 108
Rochester, MN 55904-3740
(507) 328-2400

To the City of Rochester Council Members:

According to the advertisement of the Rochester City Council inviting proposals for the improvement of the sanitary sewer main and water main hereinbefore named, and in conformity with the Contract, Plans, Specifications and Special Provisions pertaining thereto, all on file in the office of the Auditor of the Rochester City Council:

(I)(We) hereby certify that (I am)(we are) the only person(s) interested in this proposal as principal(s); that this proposal is made and submitted without fraud or collusion with any other person, firm or corporation at all; that an examination has been made of the site of the work and the Contract form, with the Plans, Specifications and Special Provisions for the improvement.

(I)(We) understand that the quantities of work shown herein are approximate only and are subject to increase or decrease; that all quantities of work, whether increased or decreased within the limits specified in Mn/DOT 1903, are to be done at the unit prices shown on the attached schedule; that, at the time of opening bids, totals only will be read, but that comparison of bids will be based on the correct summation of item totals obtained from the unit prices bid, as provided in Mn/DOT 1301.

(I)(We) propose to furnish all necessary machinery, equipment, tools, labor and other means of construction and to furnish all materials specified, in the manner and at the time prescribed, all according to the terms of the Contract and Plans, Specifications, and the Special Provisions forming a part of this.

(I)(We) further propose to do all Extra Work that may be required to complete the contemplated improvement, at unit prices or lump sums to be agreed upon in writing before starting such work, or if such prices or sums cannot be agreed upon, to do such work on a Force Account basis, as provided in Mn/DOT 1904.

(I)(We) further propose to execute the form of Contract within 10 days after receiving written notice of award, as provided in Mn/DOT 1306.

(I)(We) further propose to furnish a payment bond equal to the Contract amount, and a performance bond equal to the Contract amount, with the aggregate liability of the bond(s) equal to twice the full amount of the Contract, as security for the construction and completion of the improvement according to the Plans, Specifications and Special Provisions as provided in Mn/DOT 1305.

(I)(We) further propose to do all work according to the Plans, Specifications and Special Provisions, and to renew or repair any work that may be rejected due to defective materials or workmanship, before completion and acceptance of the Project by the Rochester City Council.

(I)(We) agree to all provisions of Minnesota Statutes 1976, Section 181.59.

(I)(We) further propose to begin work and to prosecute and complete the same according to the time schedule set forth in the Special Provisions for the improvement.

(I)(We) assign to the Rochester City Council all claims for overcharges as to goods and materials purchased in connection with this Project resulting from antitrust violations that arise under the antitrust laws of the United States and the antitrust laws of the State of Minnesota. This clause also applies to subcontractors and first tier suppliers under this Contract.

ABBREVIATIONS OF SCHEDULE OF PRICES

NOTICE TO BIDDERS

Particular note should be made in regard to the clarity of numerals (figures) and to the procedure for alterations and the required certificate as directed by Section 1301.

The following abbreviations may be used in item description and unit of measure in the Schedule of Prices.

A	Arch
A-S	Antiseepage
AB	Asbestos Bonded
ACT	Actuated
AGG	Aggregate
ALUM	Aluminum
ASB	Asbestos
ASPH	Asphaltic
ASSY	Assemblies
B+B	Balled & Burlapped
BC	Bituminous Coated
BIT	Bituminous
BLDG	Building
BR	Bridge
CAL	Caliper
CB	Catch Basin
CEM	Cement
C and G	Curb and Gutter
CI	Cast Iron
C-I-P	Cast-in-Place
CL	Class
COMM	Commercial
CONC	Concrete
COND	Conductor
CONN	Connection
CONST	Construct
CONT	Continuously RMC
CP	Cattle Pass
CTD	Coated
CU FT	Cubic Feet
CU YD	Cubic Yard
CULV	Culvert
CWT	Hundred Weight
DES	Design
DBL	Double
DI	Drop Inlet
DIAM	Diameter
DRWY	Driveway
EXC	Excavation
EXP	Expansion
FAB	Fabric
FE	Fence
FERT	Fertilizer
F+I	Furnish & Install
FOUND	Foundation
FT LG	Feet Long
FURN	Furnish
GA	Gauge
GRAN	Granular
HI	High
INP	In Place
INST	Install
JA	Jacked
LIN FT	Linear Feet
LG	Long
MAINT	Maintenance
MATL	Material
MGM	1000 Board Feet
MET	Metal
MOD	Modification
MPA	Metal Pipe Arch
MTD	Mounted
NON	MET Non Metallic
NON PERF	Non-Perforated
NON REINF	Non-Reinforced
OH	Overhead
P-A	Pipe-Arch
PAVT	Pavement
PERF	Perofrated
PL	Plate
PNEUM	Pneumatic
PREC	Precast
PREST	Prestressed
PVC	Poly Vinyl Chloride
RCPA	Reinforced Concrete Pipe Arch
REINF	Reinforced
RELO	Relocation
RESTOR	Restoration
Rigid Metallic Conduit	
RNMC	Rigid Non Metallic Conduit
RDWY	Roadway
S-G	Sand& Gravel
SIG	Signal
SPE	Special
SQ FT	Square Feet
SQ YD	Square Yard
STA	Station
STD	Standard
STL	Steel
STKPL	Stockpile
STR	Strength
STRUCT	Structural
SPPA	Structural Plate Pipe Arch
SYS	System
T	Traffic
TBR	Timber
TEMP	Temporary
THERMO	Thermoplastic
TRTD	Treated
UNDERGRD	Underground
UNTRTD	Untreated
VAR	Variable
VM	Vehicular Measure
WEAR	Wearing

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BIDDER MUST FILL IN UNIT PRICES IN NUMERALS; MAKE EXTENSION FOR EACH ITEM AND TOTAL. FOR COMPLETE INFORMATION CONCERNING THESE ITEMS, SEE PLANS AND SPECIFICATIONS, INCLUDING SPECIAL PROVISIONS.

Item No.	Description	Units	Quantity	Unit Price	Total Price
Project M14-09					
1 SANITARY SEWER (250) AND WATERMAIN (150)					
2021.501/00010	MOBILIZATION	LS	1.00		
2101.501/00010	CLEARING	ACRE	0.40		
2101.502/00010	CLEARING	TREE	9.00		
2101.506/00010	GRUBBING	ACRE	0.40		
2101.507/00010	GRUBBING	TREE	9.00		
2104.505/00120	REMOVE BITUMINOUS PAVEMENT	S Y	74.00		
2105.525/00010	TOPSOIL BORROW (LV)	C Y	20.00		
2211.503/00050	AGGREGATE BASE (CV) CLASS 5	C Y	37.00		
2563.601/00010	TRAFFIC CONTROL	LS	1.00		
2573.502/00040	SILT FENCE, TYPE MACHINE SLICED	L F	780.00		
2573.512/00012	TEMPORARY DITCH CHECK TYPE 2	L F	220.00		
2573.550/00010	EROSION CONTROL SUPERVISOR	LS	1.00		
2575.501/00010	SEEDING	ACRE	0.40		
2575.505/00030	SODDING TYPE LAWN	S Y	1,667.00		
2575.523/00013	EROSION CONTROL BLANKETS CATEGORY 3	S Y	993.00		
S100.507/00010	SOLID ROCK EXCAVATION	C Y	1,050.00		
S100.585/10032	BITUMINOUS STREET RESTORATION	S Y	74.00		
	Total 1 SANITARY SEWER (250) AND WATERMAIN (150)				
2 SANITARY SEWER (250)					
C150.503/00004	4IN SANITARY SEWER SERVICE CONNECTION	EACH	4.00		
S100.501/00610	TRENCH EXCAVATION FOR PIPE 24IN & UNDER 6FT TO 10FT DEEP	L F	558.00		
S100.510/00020	GRANULAR MATERIAL FOR BACKFILL (LV)	C Y	412.00		

BIDDER MUST FILL IN UNIT PRICES IN NUMERALS; MAKE EXTENSION FOR EACH ITEM AND TOTAL. FOR COMPLETE INFORMATION CONCERNING THESE ITEMS, SEE PLANS AND SPECIFICATIONS, INCLUDING SPECIAL PROVISIONS.

Item No.	Description	Units	Quantity	Unit Price	Total Price
S100.522/00080	FURNISH & INSTALL 8IN ALTERNATE PRESSURE PIPE SEWER	L F	558.00		
S100.545/30013	CONSTRUCT STRUCTURE TYPE 3 10FT TO 13FT DEEP	STR	2.00		
S100.545/35017	CONSTRUCT STRUCTURE TYPE 3A 15FT TO 17FT DEEP	STR	2.00		

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Total 2 SANITARY SEWER (250)					
3 WATERMAIN (150)					
C150.504/00010	1IN WATER SERVICE CONNECTION	EACH	4.00		
W200.501/00810	TRENCH EXCAVATION FOR PIPE 14IN & UNDER 8FT TO 10FT DEEP	L F	785.00		
W200.511/00010	AGGREGATE FOR PIPE FOUNDATION GRADATION A	C Y	134.00		
W200.528/00080	FURNISH & INSTALL 8IN DUCTILE IRON PIPE CLASS 52	L F	1,305.00		
W200.550/00060	FURNISH & INSTALL 6IN GATE VALVE AND BOX	EACH	2.00		
W200.550/00080	FURNISH & INSTALL 8IN GATE VALVE AND BOX	EACH	3.00		
W200.556/01208	FURNISH & INSTALL 12IN X 8IN TAPPING SLEEVE AND VALVE	EACH	1.00		
W200.560/00020	FURNISH & INSTALL HYDRANT ASSEMBLY	EACH	2.00		
W200.562/00010	FURNISH & INSTALL WATER MAIN FITTINGS	LB	482.00		
W200.572/00010	CONNECT TO EXISTING WATERMAIN	EACH	2.00		
Total 3 WATERMAIN (150)					
Total Base Bid					
M14-09 Project Total					
Grand Total					

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SURETY DEPOSITS

New Law requires surety deposits for many out-of-state contractors

A portion of payments made to out-of-state contractors must be deposited with the state of Minnesota in many instances under a new law passed by the 1989 Legislature.

The law requires that 8 percent of each payment paid to out-of-state contractors for work done in Minnesota must be withheld as a surety deposit on any contract that can reasonably be expected to exceed $100,000.

This requirement may be waived, however, if certain conditions are met.

Following are some guidelines to use with the new law.

Once an out-of-state contractor enters into a contract that is for more than or can be expected to be more than $100,000, the contractor will have to file form SD-E (Exemption from Surety Deposits for Out-of-State Contractors) with the Department of Revenue. The department will use the form to determine if the contractor is exempt from the 8 percent surety deposit requirements.

The department will grant an exemption if:

- The contractor gives the department a cash surety or bond, secured by an insurance company licensed in Minnesota, which guarantees the contractor will comply with all provisions of Minnesota withholding, sales, and corporate income tax laws, or
- The contractor has done construction work in Minnesota at any time during the three calendar years before entering into the contract and has fully complied with Minnesota withholding, sales, and corporate income tax laws.

If the contractor is exempt, the department will certify the form and return a copy to the contractor, who will then be responsible to provide a copy to whoever hired them.

If the contractor is not exempt, the department will notify whoever hired the contractor to withhold the 8 percent surety deposit from each payment made to the contractor. The person or company hiring the contractor will use form SD-D to make the surety deposits.

The Department of Revenue will retain the surety deposits until the contractor's state tax obligations are considered fulfilled. The department will then refund, with interest, any amounts held as surety.

Out-of-state contractors working for Minnesota subdivisions will still have to file the Withholding Affidavit for Contractors (form IC-134) in addition to complying with the new provisions.

If you need more forms of information, please call (612) 296-6181 from the Twin Cities area and (toll-free) 1-800-657-3777 from elsewhere.

You may also write to: Minnesota Department of Revenue
Taxpayer Information Division
Mail Station 4450
St. Paul, MN 55146-4450

Department of Public Works
201 4th Street SE, Room 108
Rochester, MN 55904-3740
(507) 328-2400

TO WHOM IT MAY CONCERN:

A new Minnesota Law effective January 1, 1990, now governs contracts over $100,000.00 for non-Minnesota contractors.

We have been informed by the Minnesota Department of Revenue that certain requirements have not been met. Therefore, we are withholding an 8% surety deposit from your payment.

You are eligible to have these funds returned when the state tax obligations are met.

Gross Amount

8% Surety Deposit _____

Net Amount Paid

If you have any questions, contact Mr. Dan Weber at (507) 328-2409.

Form 21126D (FF Rev. 4-00)

Project No. **(J7810)**

GRAND TOTAL $ _____

NON-COLLUSION AFFIDAVIT: If a Non-Collusion affidavit is found in this Proposal it must be signed by each bidder.

RECEIPT OF ADDENDA as required by 1210 of the Specifications:
The undersigned hereby acknowledges receipt of and has considered:

Addendum No. _____ Dated _____ Addendum No. ___ Dated _____

Addendum No. _____ Dated _____ Addendum No. ___ Dated _____

Signed _____

RECEIPT OF PLAN:
The undersigned hereby acknowledges receipt of and has considered: **Construction of Sanitary Sewer and Watermain to Serve Lenwood Heights Subdivision and Brook Lane SW,** ___ Plan sheets

Signed _____

EXECUTION OF PROPOSAL as required by 1206 of the Specifications:

This proposal dated the _____ day of _____, 20____

Signed: _____, P.O. Address _____ as an individual.

Signed: _____, P.O. Address _____ as an individual.

Doing business under the name and style of _____

Signed: _____, for _____ a partnership.
NAME BUSINESS ADDRESS

Signed: _____, for _____ a corporation,
Incorporated under the laws of the State of _____

Name of President _____ Business Address _____

Name of Vice-President _____ Business Address _____

Name of Secretary _____ Business Address _____

Name of Treasurer _____ Business Address _____

(NOTE: Signatures shall comply with 1206 of the Specifications.)

THIS ATTACHMENT MUST BE SUBMITTED IN A SEPARATE SEALED ENVELOPE WITHIN YOUR PROPOSAL PACKAGE

Department of Public Works
201 4th Street SE, Room 108
Rochester, MN 55904-3740
(507) 328-2400

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